

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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Issue Date: 2025-01-04

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		1146
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	157.0
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		14.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.58
				277V	13.59
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.992
				277V	0.908
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4080
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		84.9
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		17
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		85
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		95
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-11%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		62.7%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.2
			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		0.120
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		14.6
(Goniophotometer – Section 4.2)			Non-Worst Case		14.3

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-02	STRP2H @15W4000K	-	241225004-S1
2	Goniophotometer Test	2025-01-02	STRP2H @15W4000K	-	241225004-S1
3	THD and PF Test	2025-01-02	STRP2H @15W4000K	-	241225004-S1

Remark (If any):

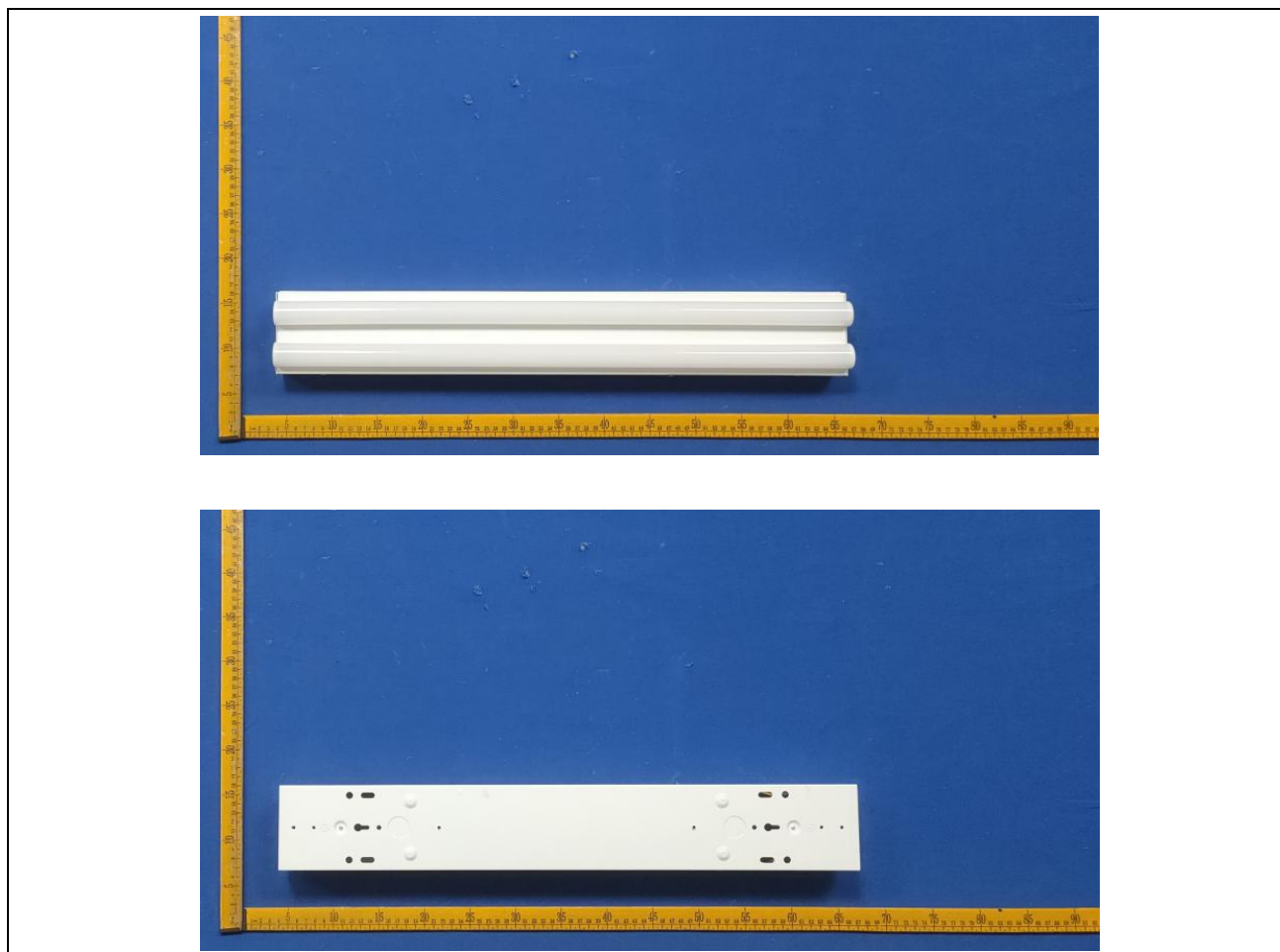
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2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any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

3.0 Product Description

Luminaire Description: Model No. STRP2H @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 @15W4000K	Sample ID	241225004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

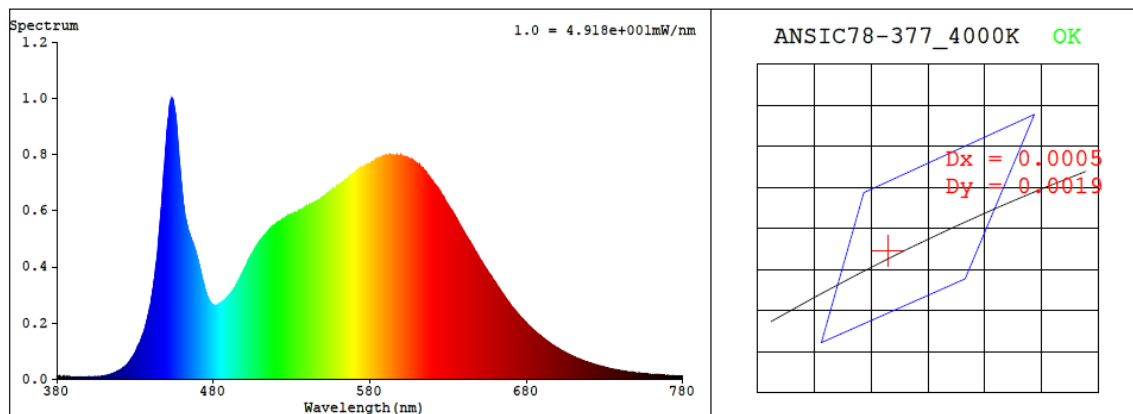
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.120	14.3	0.992
277.0	60	0.058	14.6	0.908

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4080	84.9	17	0.0008	85	95	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3775$ $y = 0.3765$ / $u' = 0.2233$ $v' = 0.5010$ ($duv=7.52e-04$)

CCT= 4080K Prcp WL: $L_d=578.3nm$ Purity=26.3%

Peak WL: $L_p=453nm$ FWHM: $=21.0nm$ Ratio:R=18.3% G=77.8% B=3.9%

Render Index: $R_a = 84.9$ AvgR = 78.8 TM30:Rf=85 Rg=95

EEL: 0.08745 A++ Highest

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

R8 =68 R9 =17 R10=79 R11=82 R12=62 R13=86 R14=98 R15=78

4.1 Integrating Sphere Test

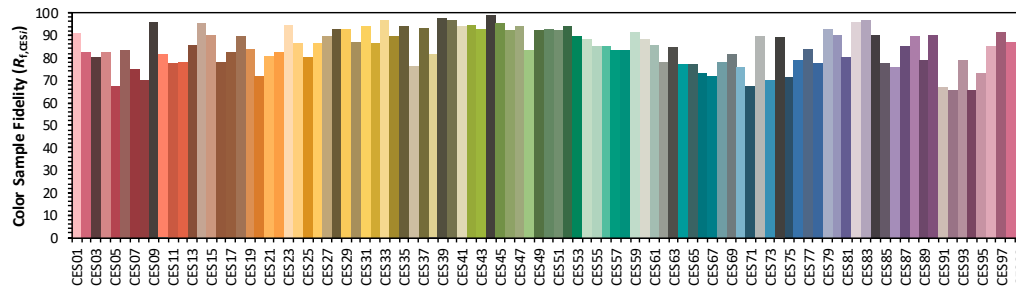
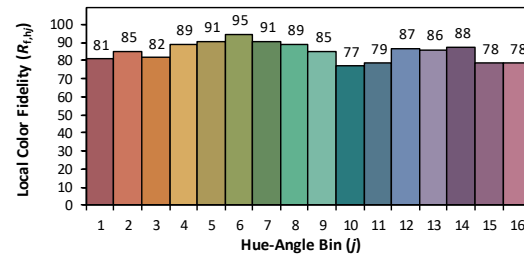
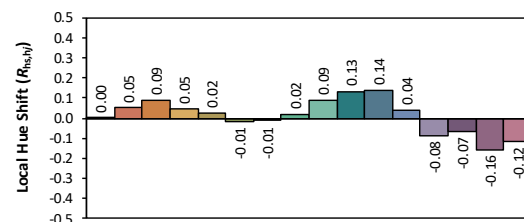
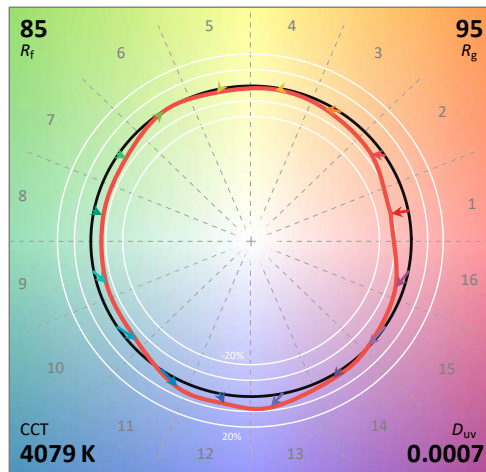
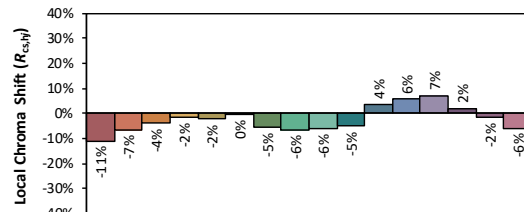
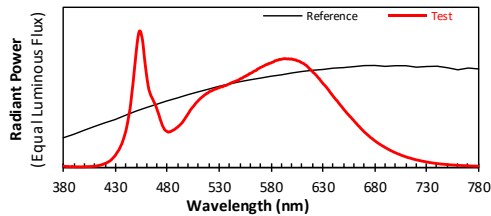
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/4

Model: STRP2H @15W4000K



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

x 0.3775
 y 0.3764
 u' 0.2233
 v' 0.5010

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	1.20E-05	447	6.32E-04	514	5.20E-04	581	7.71E-04	648	4.51E-04	715	6.93E-05
381	1.04E-05	448	7.10E-04	515	5.26E-04	582	7.73E-04	649	4.41E-04	716	6.72E-05
382	9.80E-06	449	7.83E-04	516	5.33E-04	583	7.77E-04	650	4.31E-04	717	6.45E-05
383	8.40E-06	450	8.57E-04	517	5.38E-04	584	7.83E-04	651	4.22E-04	718	6.28E-05
384	9.50E-06	451	9.23E-04	518	5.45E-04	585	7.84E-04	652	4.13E-04	719	6.07E-05
385	8.70E-06	452	9.74E-04	519	5.46E-04	586	7.87E-04	653	4.04E-04	720	5.85E-05
386	6.60E-06	453	1.00E-03	520	5.53E-04	587	7.88E-04	654	3.95E-04	721	5.70E-05
387	8.10E-06	454	9.98E-04	521	5.58E-04	588	7.93E-04	655	3.87E-04	722	5.56E-05
388	9.90E-06	455	9.70E-04	522	5.61E-04	589	7.92E-04	656	3.78E-04	723	5.35E-05
389	7.80E-06	456	9.32E-04	523	5.63E-04	590	7.93E-04	657	3.71E-04	724	5.21E-05
390	7.60E-06	457	8.66E-04	524	5.69E-04	591	7.96E-04	658	3.62E-04	725	5.04E-05
391	6.70E-06	458	7.94E-04	525	5.71E-04	592	7.97E-04	659	3.53E-04	726	4.86E-05
392	6.70E-06	459	7.30E-04	526	5.75E-04	593	7.99E-04	660	3.46E-04	727	4.71E-05
393	6.60E-06	460	6.71E-04	527	5.77E-04	594	7.98E-04	661	3.36E-04	728	4.60E-05
394	7.00E-06	461	6.21E-04	528	5.80E-04	595	7.97E-04	662	3.28E-04	729	4.45E-05
395	6.60E-06	462	5.76E-04	529	5.84E-04	596	7.95E-04	663	3.20E-04	730	4.27E-05
396	6.60E-06	463	5.52E-04	530	5.86E-04	597	7.98E-04	664	3.11E-04	731	4.13E-05
397	6.60E-06	464	5.29E-04	531	5.89E-04	598	7.95E-04	665	3.04E-04	732	4.02E-05
398	7.00E-06	465	5.15E-04	532	5.93E-04	599	7.95E-04	666	2.95E-04	733	3.84E-05
399	6.80E-06	466	4.98E-04	533	5.92E-04	600	7.97E-04	667	2.87E-04	734	3.76E-05
400	7.00E-06	467	4.82E-04	534	5.96E-04	601	7.92E-04	668	2.79E-04	735	3.63E-05
401	7.80E-06	468	4.66E-04	535	6.01E-04	602	7.92E-04	669	2.72E-04	736	3.52E-05
402	8.40E-06	469	4.49E-04	536	6.01E-04	603	7.89E-04	670	2.63E-04	737	3.43E-05
403	8.00E-06	470	4.26E-04	537	6.03E-04	604	7.90E-04	671	2.57E-04	738	3.31E-05
404	8.60E-06	471	4.05E-04	538	6.08E-04	605	7.84E-04	672	2.50E-04	739	3.21E-05
405	8.90E-06	472	3.83E-04	539	6.11E-04	606	7.82E-04	673	2.43E-04	740	3.11E-05
406	8.80E-06	473	3.56E-04	540	6.15E-04	607	7.80E-04	674	2.37E-04	741	3.04E-05
407	9.60E-06	474	3.36E-04	541	6.19E-04	608	7.77E-04	675	2.30E-04	742	2.94E-05
408	1.01E-05	475	3.13E-04	542	6.21E-04	609	7.71E-04	676	2.23E-04	743	2.82E-05
409	1.10E-05	476	2.97E-04	543	6.26E-04	610	7.68E-04	677	2.17E-04	744	2.76E-05
410	1.15E-05	477	2.83E-04	544	6.28E-04	611	7.64E-04	678	2.12E-04	745	2.68E-05
411	1.23E-05	478	2.74E-04	545	6.31E-04	612	7.61E-04	679	2.05E-04	746	2.63E-05
412	1.40E-05	479	2.68E-04	546	6.34E-04	613	7.54E-04	680	2.00E-04	747	2.52E-05
413	1.58E-05	480	2.64E-04	547	6.37E-04	614	7.50E-04	681	1.94E-04	748	2.50E-05
414	1.69E-05	481	2.60E-04	548	6.38E-04	615	7.42E-04	682	1.88E-04	749	2.39E-05
415	1.91E-05	482	2.63E-04	549	6.43E-04	616	7.36E-04	683	1.83E-04	750	2.32E-05
416	2.12E-05	483	2.64E-04	550	6.49E-04	617	7.25E-04	684	1.78E-04	751	2.27E-05
417	2.34E-05	484	2.69E-04	551	6.53E-04	618	7.21E-04	685	1.73E-04	752	2.21E-05
418	2.53E-05	485	2.73E-04	552	6.55E-04	619	7.12E-04	686	1.68E-04	753	2.15E-05
419	2.94E-05	486	2.77E-04	553	6.60E-04	620	7.05E-04	687	1.63E-04	754	2.10E-05
420	3.18E-05	487	2.81E-04	554	6.66E-04	621	6.96E-04	688	1.59E-04	755	2.04E-05
421	3.52E-05	488	2.87E-04	555	6.68E-04	622	6.90E-04	689	1.55E-04	756	2.00E-05
422	3.89E-05	489	2.93E-04	556	6.72E-04	623	6.83E-04	690	1.50E-04	757	1.98E-05
423	4.31E-05	490	2.98E-04	557	6.78E-04	624	6.75E-04	691	1.46E-04	758	1.89E-05
424	4.80E-05	491	3.06E-04	558	6.78E-04	625	6.65E-04	692	1.41E-04	759	1.83E-05
425	5.33E-05	492	3.12E-04	559	6.88E-04	626	6.56E-04	693	1.37E-04	760	1.81E-05
426	5.98E-05	493	3.20E-04	560	6.89E-04	627	6.49E-04	694	1.33E-04	761	1.77E-05
427	6.79E-05	494	3.28E-04	561	6.94E-04	628	6.37E-04	695	1.29E-04	762	1.76E-05
428	7.61E-05	495	3.38E-04	562	6.97E-04	629	6.29E-04	696	1.25E-04	763	1.67E-05
429	8.44E-05	496	3.49E-04	563	7.03E-04	630	6.19E-04	697	1.21E-04	764	1.65E-05
430	9.40E-05	497	3.60E-04	564	7.07E-04	631	6.10E-04	698	1.18E-04	765	1.62E-05
431	1.06E-04	498	3.72E-04	565	7.10E-04	632	6.03E-04	699	1.14E-04	766	1.57E-05
432	1.18E-04	499	3.83E-04	566	7.13E-04	633	5.94E-04	700	1.11E-04	767	1.52E-05
433	1.29E-04	500	3.95E-04	567	7.22E-04	634	5.86E-04	701	1.08E-04	768	1.53E-05
434	1.44E-04	501	4.06E-04	568	7.25E-04	635	5.75E-04	702	1.04E-04	769	1.46E-05
435	1.60E-04	502	4.20E-04	569	7.30E-04	636	5.66E-04	703	1.01E-04	770	1.43E-05
436	1.76E-04	503	4.30E-04	570	7.34E-04	637	5.55E-04	704	9.82E-05	771	1.41E-05
437	1.98E-04	504	4.40E-04	571	7.37E-04	638	5.45E-04	705	9.50E-05	772	1.36E-05
438	2.20E-04	505	4.48E-04	572	7.41E-04	639	5.35E-04	706	9.16E-05	773	1.34E-05
439	2.46E-04	506	4.57E-04	573	7.44E-04	640	5.25E-04	707	8.87E-05	774	1.30E-05
440	2.73E-04	507	4.68E-04	574	7.49E-04	641	5.15E-04	708	8.62E-05	775	1.27E-05
441	3.09E-04	508	4.77E-04	575	7.53E-04	642	5.05E-04	709	8.34E-05	776	1.25E-05
442	3.49E-04	509	4.84E-04	576	7.56E-04	643	4.96E-04	710	8.07E-05	777	1.24E-05
443	3.93E-04	510	4.93E-04	577	7.57E-04	644	4.90E-04	711	7.85E-05	778	1.20E-05
444	4.35E-04	511	5.00E-04	578	7.63E-04	645	4.78E-04	712	7.54E-05	779	1.21E-05
445	4.99E-04	512	5.08E-04	579	7.64E-04	646	4.69E-04	713	7.34E-05	780	1.21E-05
446	5.65E-04	513	5.14E-04	580	7.67E-04	647	4.59E-04	714	7.15E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2H @15W4000K	Sample ID	241225004-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 $25 \pm 1^\circ\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.</p> <p>The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1.0° vertical intervals and 15° horizontal intervals.</p>

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	277.0	60	0.058	14.6	0.908
NON-WORST CASE	120.0	60	0.120	14.3	0.992

Test Result

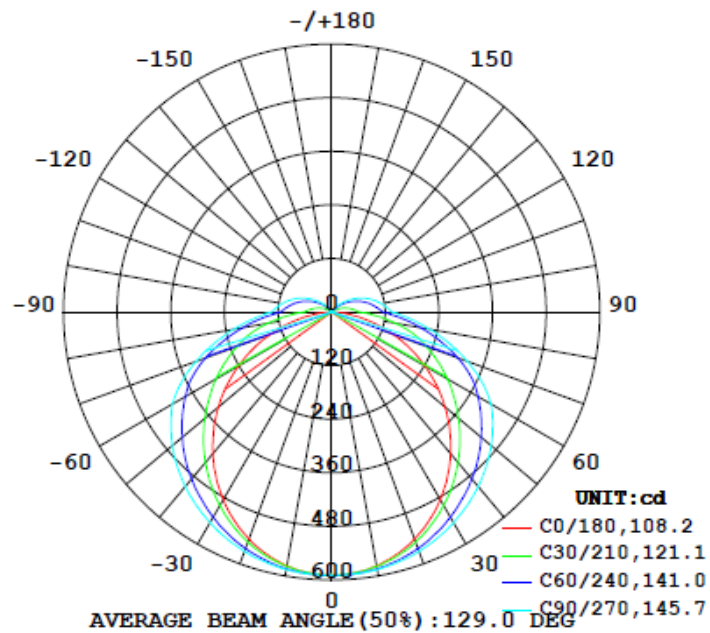
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2292	1146	162.5	162.5	108.9	145.4	157.0

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
62.7%	22.8	28.2

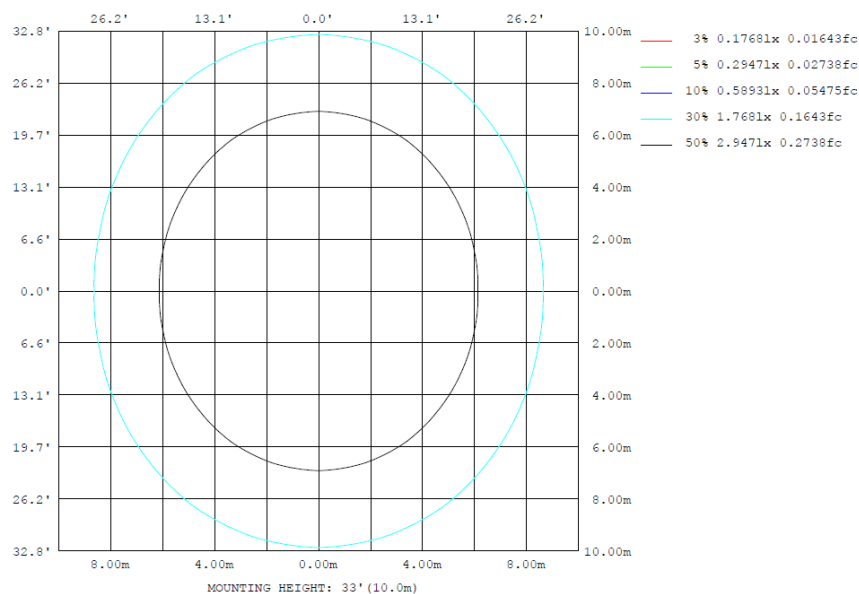
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	577.4	580.5	585.5	580.5	577.4	580.5	585.5	580.5	0- 10	55.90	55.90	2.44,2.44
20	541.1	555.3	570.6	555.3	541.1	555.3	570.6	555.3	10- 20	161.2	217.1	9.47,9.47
30	485.2	515.0	545.0	515.0	485.2	515.0	545.0	515.0	20- 30	247.8	464.9	20.3,20.3
40	413.4	462.7	510.0	462.7	413.4	462.7	510.0	462.7	30- 40	307.1	772.0	33.7,33.7
50	330.7	404.5	465.6	404.5	330.7	404.5	465.6	404.5	40- 50	334.6	1107	48.3,48.3
60	240.4	340.7	411.1	340.7	240.4	340.7	411.1	340.7	50- 60	329.7	1436	62.7,62.7
70	146.5	271.0	323.3	271.0	146.5	271.0	323.3	271.0	60- 70	292.7	1729	75.5,75.5
80	56.93	177.6	222.9	177.6	56.93	177.6	222.9	177.6	70- 80	220.8	1950	85.1,85.1
90	4.056	91.95	135.6	91.95	4.056	91.95	135.6	91.95	80- 90	131.8	2082	90.8,90.8
100	3.562	71.36	112.0	71.36	3.562	71.36	112.0	71.36	90-100	80.12	2162	94.3,94.3
110	3.562	49.94	87.18	49.94	3.562	49.94	87.18	49.94	100-110	58.72	2221	96.9,96.9
120	4.026	30.21	60.34	30.21	4.026	30.21	60.34	30.21	110-120	37.91	2258	98.6,98.6
130	4.124	12.59	34.97	12.59	4.124	12.59	34.97	12.59	120-130	20.47	2279	99.4,99.4
140	4.218	2.774	13.37	2.774	4.218	2.774	13.37	2.774	130-140	8.389	2287	99.8,99.8
150	4.218	2.399	1.390	2.399	4.218	2.399	1.390	2.399	140-150	2.259	2290	99.9,99.9
160	4.124	2.030	1.298	2.030	4.124	2.030	1.298	2.030	150-160	1.121	2291	100,100
170	4.683	2.030	1.476	2.030	4.683	2.030	1.476	2.030	160-170	0.6465	2291	100,100
180	4.592	2.030	1.668	2.030	4.592	2.030	1.668	2.030	170-180	0.2385	2292	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	55.90	0-10	55.90	2.44%
10-20	161.18	0-20	217.08	9.47%
20-30	247.84	0-30	464.92	20.29%
30-40	307.08	0-40	772.00	33.69%
40-50	334.63	0-50	1106.63	48.30%
50-60	329.75	0-60	1436.38	62.69%
60-70	292.68	0-70	1729.06	75.46%
70-80	220.80	0-80	1949.86	85.10%
80-90	131.84	0-90	2081.70	90.85%
90-100	80.12	0-100	2161.82	94.35%
100-110	58.72	0-110	2220.54	96.91%
110-120	37.91	0-120	2258.45	98.56%
120-130	20.47	0-130	2278.92	99.46%
130-140	8.39	0-140	2287.31	99.82%
140-150	2.26	0-150	2289.57	99.92%
150-160	1.12	0-160	2290.69	99.97%
160-170	0.65	0-170	2291.34	100.00%
170-180	0.24	0-180	2291.58	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	21.2
	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	23.8	23.0	24.3	24.9
	6H	17.9	19.1	18.4	19.6	20.2	23.6	24.8	24.1	25.4	26.0
	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	18.6	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	19.8	20.9	21.5	23.3	24.3	23.9	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	27.9
	12H	21.4	22.0	22.0	22.6	23.3	26.8	27.3	27.4	28.0	28.7
12H	4H	20.4	21.2	21.0	21.9	22.5	23.5	24.3	24.2	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	22.3	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		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	18.3	19.9	18.8	20.4	20.9	21.5	23.0	22.0	23.5	24.1
	3H	19.9	21.3	20.4	21.8	22.4	24.1	25.5	24.6	26.0	26.6
	4H	20.4	21.8	21.0	22.3	22.9	25.3	26.7	25.9	27.2	27.8
	6H	20.8	22.0	21.3	22.5	23.1	26.5	27.7	27.0	28.3	28.9
	8H	20.8	22.0	21.4	22.6	23.2	27.0	28.2	27.6	28.8	29.4
	12H	20.9	22.0	21.4	22.6	23.2	27.6	28.8	28.2	29.3	30.0
4H	2H	19.6	20.9	20.1	21.5	22.0	22.0	23.3	22.5	23.8	24.4
	3H	21.5	22.6	22.0	23.2	23.8	24.8	26.0	25.4	26.5	27.1
	4H	22.2	23.2	22.7	23.8	24.4	26.2	27.2	26.8	27.8	28.4
	6H	22.7	23.6	23.2	24.2	24.8	27.5	28.5	28.1	29.1	29.7
	8H	22.8	23.7	23.4	24.3	24.9	28.2	29.1	28.8	29.7	30.3
	12H	22.9	23.7	23.5	24.3	24.9	28.9	29.7	29.5	30.3	31.0
8H	4H	23.1	24.0	23.7	24.6	25.2	26.4	27.3	27.0	27.9	28.6
	6H	23.8	24.6	24.5	25.2	25.9	28.0	28.7	28.6	29.3	30.0
	8H	24.1	24.8	24.7	25.4	26.1	28.8	29.4	29.4	30.1	30.8
	12H	24.3	24.9	24.9	25.5	26.2	29.7	30.2	30.3	30.9	31.6
12H	4H	23.3	24.1	23.9	24.8	25.4	26.4	27.2	27.1	27.9	28.5
	6H	24.2	24.9	24.8	25.5	26.2	28.0	28.7	28.7	29.3	30.0
	8H	24.6	25.2	25.2	25.8	26.5	28.9	29.5	29.5	30.1	30.9

Maximum UGR = 31.6

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	589	590	589	590	591	590	590	590	591	590	589	590	589	590	589	590	591	590	590
5	586	587	586	588	588	589	589	589	588	588	586	587	586	587	586	588	588	589	589
10	577	578	579	581	584	585	586	585	584	581	579	578	577	578	579	581	584	585	586
15	562	564	566	570	575	578	579	578	575	570	566	564	562	564	566	570	575	578	579
20	541	544	548	555	564	568	571	568	564	555	548	544	541	544	548	555	564	568	571
25	516	519	526	537	548	556	559	556	548	537	526	519	516	519	526	537	548	556	559
30	485	490	501	515	531	540	545	540	531	515	501	490	485	490	501	515	531	540	545
35	451	457	471	490	510	523	528	523	510	490	471	457	451	457	471	490	510	523	528
40	413	421	440	463	488	504	510	504	488	463	440	421	413	421	440	463	488	504	510
45	373	383	406	434	464	482	489	482	464	434	406	383	373	383	406	434	464	482	489
50	331	343	371	405	436	457	466	457	436	405	371	343	331	343	371	405	436	457	466
55	286	301	335	373	408	431	440	431	408	373	335	301	286	301	335	373	408	431	440
60	240	258	299	341	378	402	411	402	378	341	299	258	240	258	299	341	378	402	411
65	194	217	262	307	345	364	371	364	345	307	262	217	194	217	262	307	345	364	371
70	146	175	225	271	300	317	323	317	300	271	225	175	146	175	225	271	300	317	323
75	100	136	189	225	251	268	273	268	251	225	189	136	100	136	189	225	251	268	273
80	56.9	98.7	145	178	203	218	223	218	203	178	145	98.7	56.9	98.7	145	178	203	218	223
85	21.5	62.3	101	132	156	171	176	171	156	132	101	62.3	21.5	62.3	101	132	156	171	176
90	4.06	29.0	62.4	91.9	116	130	136	130	116	91.9	62.4	29.0	4.06	29.0	62.4	91.9	116	130	136
95	3.65	21.1	52.6	80.9	104	118	124	118	104	80.9	52.6	21.1	3.65	21.1	52.6	80.9	104	118	124
100	3.56	14.4	43.6	71.4	92.7	107	112	107	92.7	71.4	43.6	14.4	3.56	14.4	43.6	71.4	92.7	107	112
105	3.56	8.86	34.7	61.0	82.0	94.5	100	94.5	82.0	61.0	34.7	8.86	3.56	8.86	34.7	61.0	82.0	94.5	100
110	3.56	4.48	26.2	49.9	70.0	82.2	87.2	82.2	70.0	49.9	26.2	4.48	3.56	4.48	26.2	49.9	70.0	82.2	87.2
115	3.56	3.92	18.6	39.8	57.9	69.3	73.7	69.3	57.9	39.8	18.6	3.92	3.56	3.92	18.6	39.8	57.9	69.3	73.7
120	4.03	3.82	11.5	30.2	46.1	56.4	60.3	56.4	46.1	30.2	11.5	3.82	4.03	3.82	11.5	30.2	46.1	56.4	60.3
125	4.12	3.82	5.19	21.0	34.9	44.0	47.3	44.0	34.9	21.0	5.19	3.82	4.12	3.82	5.19	21.0	34.9	44.0	47.3
130	4.12	3.82	3.52	12.6	24.7	32.5	35.0	32.5	24.7	12.6	3.52	3.82	4.12	3.82	3.52	12.6	24.7	32.5	35.0
135	4.22	3.82	3.42	4.92	15.0	21.7	23.9	21.7	15.0	4.92	3.42	3.82	4.22	3.82	3.42	4.92	15.0	21.7	23.9
140	4.22	3.82	3.24	2.77	6.06	11.5	13.4	11.5	6.06	2.77	3.24	3.82	4.22	3.82	3.24	2.77	6.06	11.5	13.4
145	4.22	3.92	3.06	2.58	2.22	2.61	3.84	2.61	2.22	2.58	3.06	3.92	4.22	3.92	3.06	2.58	2.22	2.61	3.84
150	4.22	3.54	2.87	2.40	2.04	1.67	1.39	1.67	2.04	2.40	2.87	3.54	4.22	3.54	2.87	2.40	2.04	1.67	1.39
155	4.31	3.36	2.50	2.31	2.04	1.57	1.30	1.57	2.04	2.31	2.50	3.36	4.31	3.36	2.50	2.31	2.04	1.57	1.30
160	4.12	3.17	2.31	2.03	1.85	1.57	1.30	1.57	1.85	2.03	2.31	3.17	4.12	3.17	2.31	2.03	1.85	1.57	1.30
165	4.31	3.17	2.31	2.03	1.76	1.57	1.30	1.57	1.76	2.03	2.31	3.17	4.31	3.17	2.31	2.03	1.76	1.57	1.30
170	4.68	3.64	2.68	2.03	1.76	1.57	1.48	1.57	1.76	2.03	2.68	3.64	4.68	3.64	2.68	2.03	1.76	1.57	1.48
175	4.59	3.82	2.77	2.03	1.85	1.67	1.58	1.67	1.85	2.03	2.77	3.82	4.59	3.82	2.77	2.03	1.85	1.67	1.58
180	4.59	3.82	2.78	2.03	1.85	1.76	1.67	1.76	1.85	2.03	2.78	3.82	4.59	3.82	2.78	2.03	1.85	1.76	1.67

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	590	591	590	589	590														
5	589	588	588	586	587														
10	585	584	581	579	578														
15	578	575	570	566	564														
20	568	564	555	548	544														
25	556	548	537	526	519														
30	540	531	515	501	490														
35	523	510	490	471	457														
40	504	488	463	440	421														
45	482	464	434	406	383														
50	457	436	405	371	343														
55	431	408	373	335	301														
60	402	378	341	299	258														
65	364	345	307	262	217														
70	317	300	271	225	175														
75	268	251	225	189	136														
80	218	203	178	145	98.7														
85	171	156	132	101	62.3														
90	130	116	91.9	62.4	29.0														
95	118	104	80.9	52.6	21.1														
100	107	92.7	71.4	43.6	14.4														
105	94.5	82.0	61.0	34.7	8.86														
110	82.2	70.0	49.9	26.2	4.48														
115	69.3	57.9	39.8	18.6	3.92														
120	56.4	46.1	30.2	11.5	3.82														
125	44.0	34.9	21.0	5.19	3.82														
130	32.5	24.7	12.6	3.52	3.82														
135	21.7	15.0	4.92	3.42	3.82														
140	11.5	6.06	2.77	3.24	3.82														
145	2.61	2.22	2.58	3.06	3.92														
150	1.67	2.04	2.40	2.87	3.54														
155	1.57	2.04	2.31	2.50	3.36														
160	1.57	1.85	2.03	2.31	3.17														
165	1.57	1.76	2.03	2.31	3.17														
170	1.57	1.76	2.03	2.68	3.64														
175	1.67	1.85	2.03	2.77	3.82														
180	1.76	1.85	2.03	2.78	3.82														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2H @15W4000K	Sample ID	241225004-S1
Temperature (°C)	25.4	Humidity (%RH)	41.0

Test Method
<p>The samples were tested according to the and ANSI C82.77: 2002 and ANSI C82.77-10:2020</p> <p>The total harmonic distortion shall be measured to the 40th order.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^\circ\text{C}$. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion was calculated.</p>

Test Results

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.120	14.3	0.992	6.58
277.0	60	0.058	14.6	0.908	13.59

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*****