

LM-79-19 Test Report

For

RAB LIGHTING INC.

408 W 14th St, New York, NY 10014 United States

Track or Mono-Point Luminaires

Model Name(s): TK22S[blank, B]

Representative (Tested) Model:

TK22S[blank, B](0%,2700K)

TK22S[blank, B](50%,3500K)

TK22S[blank, B](100%,5000K)

Model Difference: N/A

Prepared by:

Alan Wang

Engineer: Alan Wang

Date: 2025-04-17

Reviewed by:

Vincent Yuan

Technical Lead: Vincent Yuan

Issue Date: 2025-04-15

Revised Date: N/A

- Note:
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.

Laboratory: Dongguan New Testing Centre Co., Ltd

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

Tel: 86-769-22212079

Website: <http://www.ntc-cert.com>

Client Information:

Applicant Name:	RAB LIGHTING INC.
Brand Name:	RAB LIGHTING
Manufacturer Name:	RAB LIGHTING INC.
Manufacturer Address:	408 W 14th St, New York, NY 10014 United States

Product Information:

Model Number:	TK22S[blank, B]
Product Type:	Track or Mono-Point Luminaires
Rating Input:	120Vac, 60Hz, 4W/6W/8W
Declared CCT:	2700K,3000K,3500K,4000K,5000K (Color Tunable)
LED Manufacturer:	Bridgelux Inc.
LED Model:	BXRV-TR-2750G-06F7-B-23

Test Information:

Standard Lamp:	Total Spectral Radiant Flux Standard Lamp, trace to NIST. 1. D908S for Gonio, luminous uncertainty 3.14% 2. D215S for Integrating Sphere, luminous uncertainty 2.86%, CCT uncertainty 3K
Date of Receipt Samples:	2024-01-06
Quantity of Receipt Samples:	1 pc
Sample Number:	250114001-S1
Test Representation:	N/A

Laboratory Information:

Test Laboratory:	Dongguan New Testing Centre Co., Ltd
Laboratory Address:	3F, No. 1 the 1 st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China
Laboratory Contact Name:	Neil Zhong
Laboratory Contact E-mail:	Neil_zhong@ntc-cert.com

Report Information:

Test Report Form:	LM-79_TRF_V1.6
Issued Date of Test Report:	2025-04-15
Revised Date of Test Report:	N/A
Test Report No.:	NTCLR25040343
Remark (If applicable):	1. This report is copied from NTCLR25040098, due to the same product.

Test Specification:	
Date of Test	2025-01-08
Test Item	<ol style="list-style-type: none"> 1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Fidelity Index 8. Gamut Index 9. Local Chroma Shift 10. THD and PF
Reference Standard	ANSI/IES LM-79:2019 Optical and Electrical Measurements of Solid-State Lighting Products – Chromaticity Uniformity Measurements ANSI C78.377-2017 Specifications for the Chromaticity of Solid State Lighting Products CIE 13.3-1995 Method of Measuring and Specifying Color Rendering Properties of Light Sources CIE 15-2018 Technical Report Colorimetry ANSI IES TM-30-18 IES Method for Evaluating Light Source Color Rendition IES TM-15-11 Luminaire Classification System for Outdoor Luminaires Addendum A for IES TM-15-11 Backlight, Uplight, and Glare (BUG) Ratings ANSI C82.77-10:2020 Harmonic Emission Limits – Related Power Quality Requirements for Lighting Equipment – Solid State

Test Methods:
<p>1. Photometric and Electrical Measurements – Light Distribution Method:</p> <p>Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at 25 °C ± 1°C, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at required Voltage and Frequency. It was stabilized before measurement was made. Luminous Flux, Luminaire Efficacy and Zonal Lumen were calculated from the software taken at 1° vertical intervals and 15° horizontal intervals.</p>
<p>2. Photometric and Electrical Measurements – Integrating Sphere Method:</p> <p>Photometric parameters were measured using an integrating sphere, as spectroradiometer and software. The ambient temperature condition inside the sphere was measured at 25 °C± 1°C. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at require Voltage and Frequency. It was stabilized before measurement was made. Chromaticity Coordinates, Correlated Color Temperature and Color Rendering Index were calculated from the spectral radiant flux measurements taken at least 1 nm intervals over the range of 380 to 780 nm.</p>
<p>3. THD and PF Measurements:</p> <p>The sample was tested according to the ANSI C82.77, the sample was operated at requirement Voltage and Frequency, and was stabilized before measurement. The Total Harmonic Distortion was calculated from the Digital Power Meter.</p>

Integrating Sphere Test Results:

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.4	41.0	Face Down	90	10

Electrical Data:

CCT Setting	Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
2700K	120.0	60	0.0692	7.99	0.9615
3500K	120.0	60	0.0672	7.76	0.9616
5000K	120.0	60	0.0686	7.92	0.9615

Output Data:

CCT Setting	Luminous (lm)	Efficacy (lm/W)
2700K	702.6	87.98
3500K	804.5	103.69
5000K	781.3	98.71

Color Data:

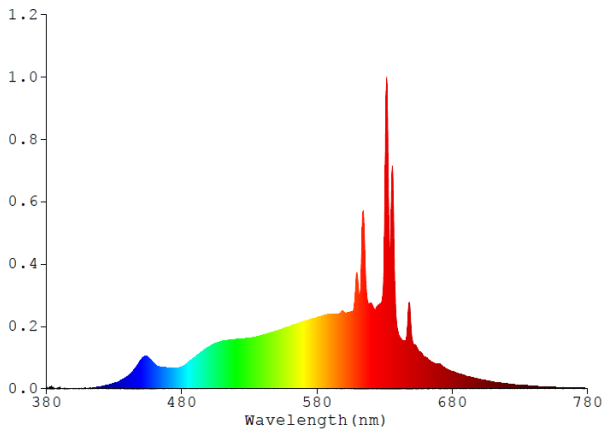
CCT Setting	Test CCT (K)	R _a	R ₉	R _f	R _g	R _{cs, h1}	SDCM	Chromaticity		
								(x, y)	(u', v')	Duv
2700K	2858	96.4	72	92	97	-4%	6.2	(0.4528,0.4179)	(0.2548,0.5290)	0.0034
3500K	3684	97.3	90	92	98	-2%	6.5	(0.3980,0.3930)	(0.2300,0.5111)	0.0027
5000K	4867	91.5	55	91	99	-6%	2.2	(0.3497,0.3617)	(0.2106,0.4902)	0.0032

Specify Color Rendering:

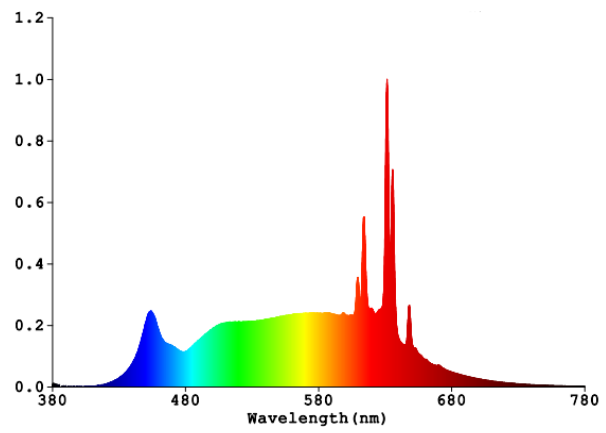
CCT Setting	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
2700K	99	99	99	98	99	96	94	88	72	98	95	92	99	98	93
3500K	98	99	98	97	98	96	96	95	90	98	96	83	98	98	97
5000K	91	94	96	92	90	91	94	84	55	85	92	70	92	98	87

Spectrum Diagram:

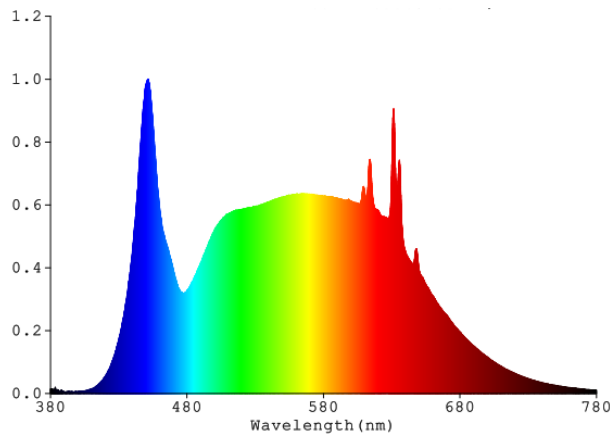
CCT Setting=2700K



CCT Setting=3500K



CCT Setting=5000K

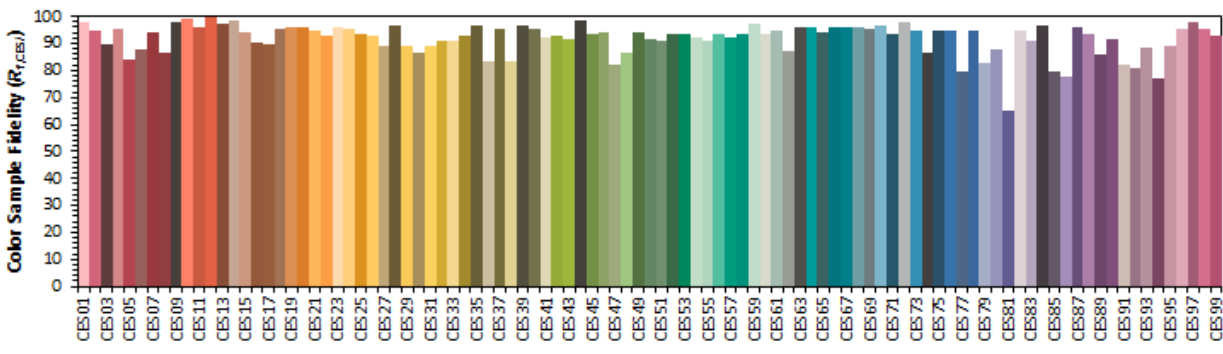
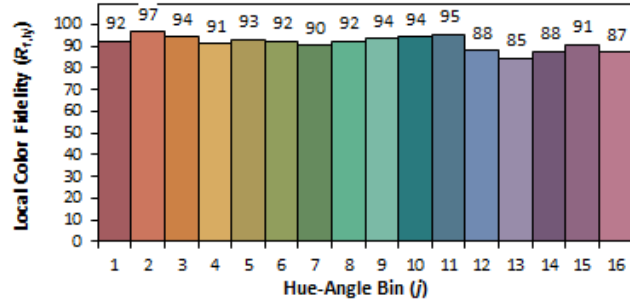
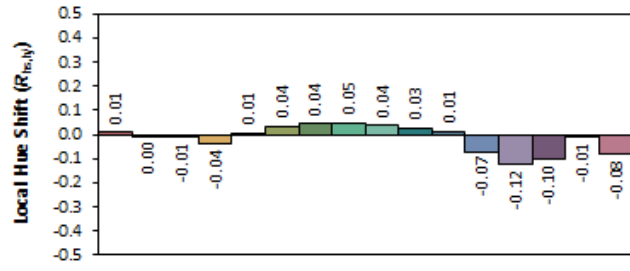
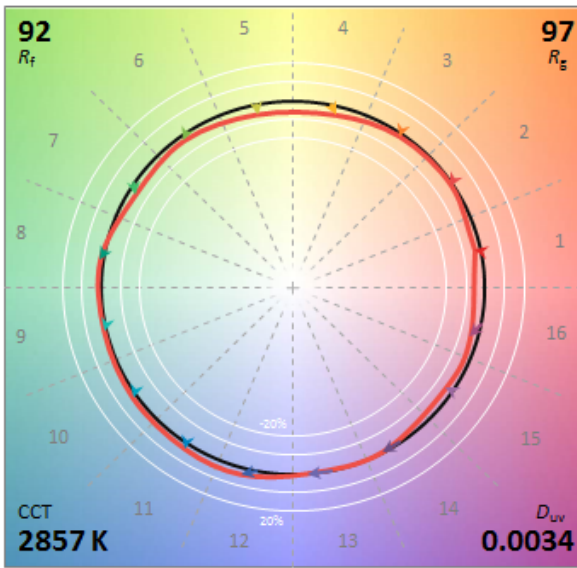
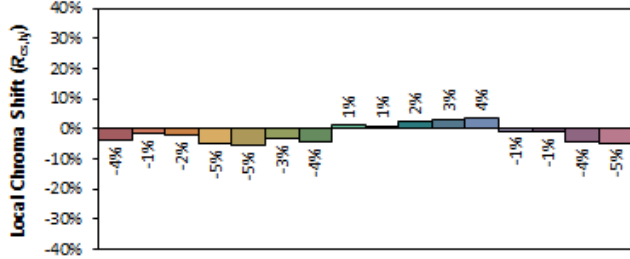
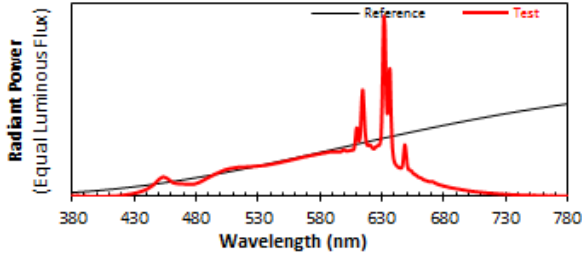


IES TM-30-18 Color Rendition Result (CCT Setting=2700K):

ANSI/IES TM-30-18 Color Rendition Report

Source: BXRV-TR-2750G-06F7-B-23
Date: 2025/4/9

Manufacturer: RAB LIGHTING INC.
Model: TK22S[blank, B] (0%, 2700K)



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

x **0.4529**
 y **0.4178**
 u' **0.2549**
 v' **0.5290**

CIE 13.3-1995 (CRI)	
R_a	96
R_g	72

Spectrum Data (CCT Setting=2700K):

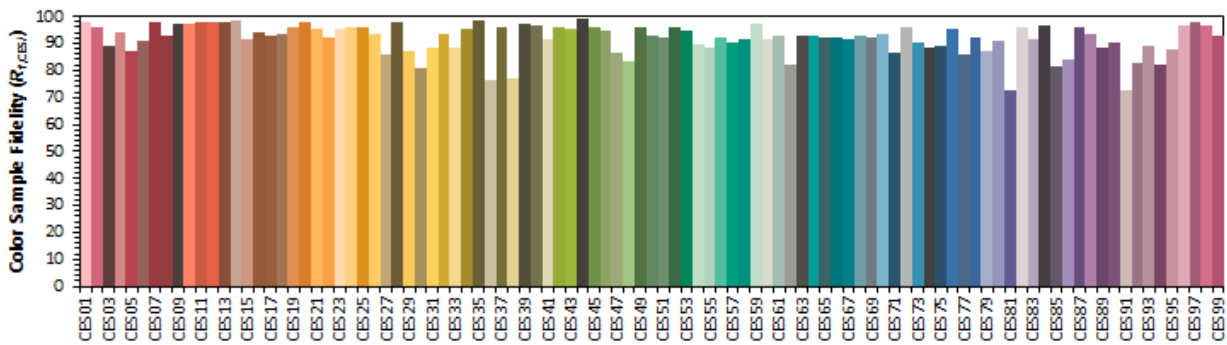
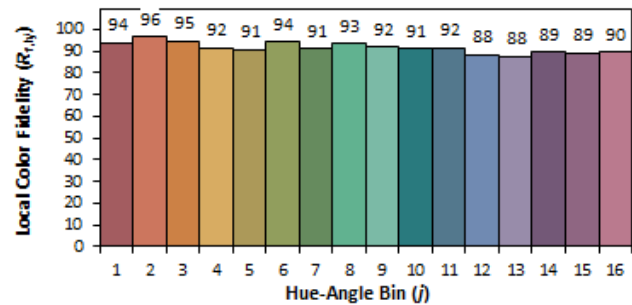
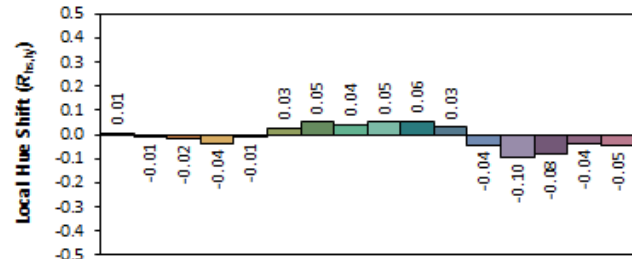
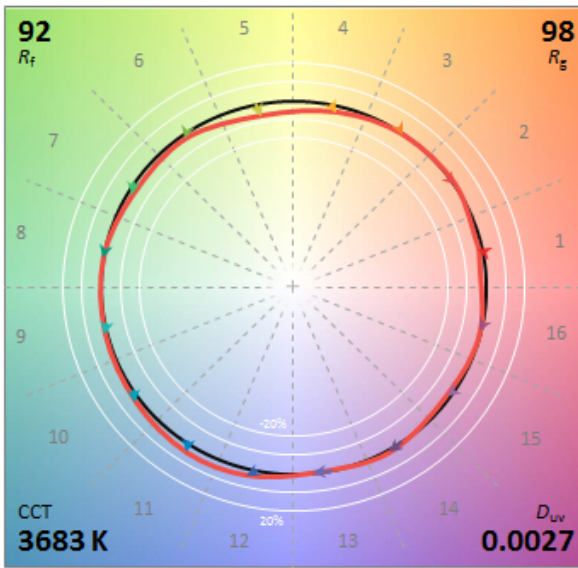
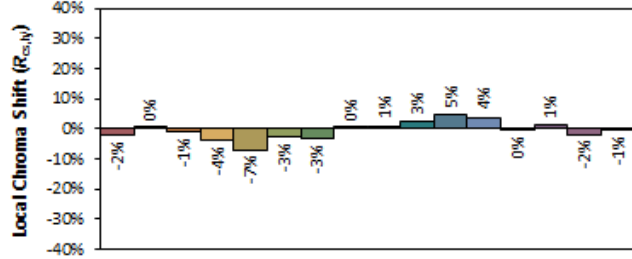
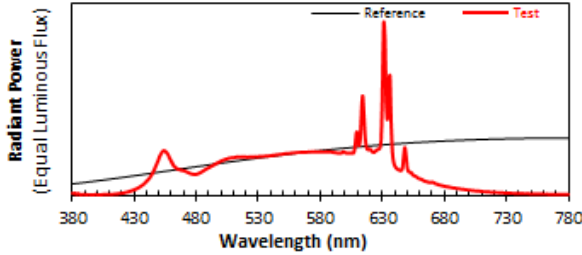
Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	7.40E-06	447	7.45E-05	514	1.56E-04	581	2.31E-04	648	2.76E-04	715	1.93E-05
381	0.00E+00	448	8.11E-05	515	1.57E-04	582	2.31E-04	649	2.31E-04	716	1.86E-05
382	3.40E-06	449	8.82E-05	516	1.57E-04	583	2.32E-04	650	1.67E-04	717	1.83E-05
383	3.80E-06	450	9.36E-05	517	1.57E-04	584	2.34E-04	651	1.45E-04	718	1.79E-05
384	6.70E-06	451	9.89E-05	518	1.57E-04	585	2.35E-04	652	1.42E-04	719	1.72E-05
385	4.80E-06	452	1.03E-04	519	1.58E-04	586	2.36E-04	653	1.39E-04	720	1.66E-05
386	0.00E+00	453	1.05E-04	520	1.59E-04	587	2.38E-04	654	1.30E-04	721	1.63E-05
387	0.00E+00	454	1.04E-04	521	1.59E-04	588	2.38E-04	655	1.22E-04	722	1.55E-05
388	1.80E-06	455	1.02E-04	522	1.59E-04	589	2.39E-04	656	1.19E-04	723	1.52E-05
389	0.00E+00	456	9.80E-05	523	1.60E-04	590	2.39E-04	657	1.15E-04	724	1.46E-05
390	6.20E-06	457	9.33E-05	524	1.59E-04	591	2.39E-04	658	1.10E-04	725	1.43E-05
391	0.00E+00	458	8.84E-05	525	1.60E-04	592	2.39E-04	659	1.04E-04	726	1.34E-05
392	1.30E-06	459	8.37E-05	526	1.61E-04	593	2.39E-04	660	1.02E-04	727	1.35E-05
393	2.10E-06	460	7.91E-05	527	1.61E-04	594	2.38E-04	661	1.01E-04	728	1.28E-05
394	4.00E-07	461	7.48E-05	528	1.61E-04	595	2.39E-04	662	9.55E-05	729	1.24E-05
395	0.00E+00	462	7.24E-05	529	1.63E-04	596	2.39E-04	663	9.09E-05	730	1.24E-05
396	0.00E+00	463	7.08E-05	530	1.63E-04	597	2.42E-04	664	8.78E-05	731	1.17E-05
397	0.00E+00	464	7.03E-05	531	1.65E-04	598	2.48E-04	665	8.60E-05	732	1.13E-05
398	1.40E-06	465	6.91E-05	532	1.64E-04	599	2.50E-04	666	8.32E-05	733	1.11E-05
399	1.60E-06	466	6.83E-05	533	1.66E-04	600	2.45E-04	667	8.12E-05	734	1.06E-05
400	3.00E-07	467	6.86E-05	534	1.66E-04	601	2.43E-04	668	7.97E-05	735	1.04E-05
401	0.00E+00	468	6.85E-05	535	1.67E-04	602	2.44E-04	669	7.91E-05	736	9.90E-06
402	1.20E-06	469	6.81E-05	536	1.68E-04	603	2.44E-04	670	8.05E-05	737	9.70E-06
403	0.00E+00	470	6.77E-05	537	1.69E-04	604	2.46E-04	671	7.87E-05	738	9.40E-06
404	4.00E-07	471	6.69E-05	538	1.70E-04	605	2.48E-04	672	7.43E-05	739	9.20E-06
405	1.10E-06	472	6.76E-05	539	1.71E-04	606	2.47E-04	673	7.10E-05	740	9.00E-06
406	1.40E-06	473	6.62E-05	540	1.73E-04	607	2.54E-04	674	6.82E-05	741	8.50E-06
407	1.30E-06	474	6.63E-05	541	1.73E-04	608	2.97E-04	675	6.56E-05	742	8.30E-06
408	1.80E-06	475	6.62E-05	542	1.75E-04	609	3.66E-04	676	6.29E-05	743	8.20E-06
409	2.50E-06	476	6.70E-05	543	1.76E-04	610	3.51E-04	677	6.13E-05	744	7.80E-06
410	2.30E-06	477	6.63E-05	544	1.78E-04	611	2.95E-04	678	5.95E-05	745	7.60E-06
411	2.20E-06	478	6.71E-05	545	1.79E-04	612	3.19E-04	679	5.72E-05	746	7.40E-06
412	2.50E-06	479	6.86E-05	546	1.80E-04	613	4.67E-04	680	5.58E-05	747	7.30E-06
413	2.90E-06	480	7.07E-05	547	1.81E-04	614	5.69E-04	681	5.43E-05	748	6.70E-06
414	3.20E-06	481	7.29E-05	548	1.83E-04	615	4.74E-04	682	5.27E-05	749	7.10E-06
415	3.10E-06	482	7.57E-05	549	1.85E-04	616	3.44E-04	683	5.12E-05	750	6.50E-06
416	4.20E-06	483	7.90E-05	550	1.86E-04	617	2.87E-04	684	4.96E-05	751	6.20E-06
417	5.30E-06	484	8.20E-05	551	1.88E-04	618	2.72E-04	685	4.84E-05	752	6.10E-06
418	5.00E-06	485	8.56E-05	552	1.88E-04	619	2.75E-04	686	4.67E-05	753	6.00E-06
419	6.20E-06	486	8.92E-05	553	1.91E-04	620	2.76E-04	687	4.55E-05	754	6.10E-06
420	7.10E-06	487	9.30E-05	554	1.91E-04	621	2.66E-04	688	4.45E-05	755	5.50E-06
421	7.60E-06	488	9.62E-05	555	1.93E-04	622	2.58E-04	689	4.29E-05	756	5.50E-06
422	9.10E-06	489	9.96E-05	556	1.95E-04	623	2.54E-04	690	4.17E-05	757	5.20E-06
423	9.40E-06	490	1.03E-04	557	1.96E-04	624	2.61E-04	691	4.08E-05	758	5.00E-06
424	1.11E-05	491	1.07E-04	558	1.99E-04	625	2.68E-04	692	3.96E-05	759	5.10E-06
425	1.12E-05	492	1.10E-04	559	1.99E-04	626	2.70E-04	693	3.84E-05	760	5.00E-06
426	1.27E-05	493	1.12E-04	560	2.01E-04	627	2.73E-04	694	3.68E-05	761	4.70E-06
427	1.46E-05	494	1.17E-04	561	2.03E-04	628	2.82E-04	695	3.61E-05	762	4.60E-06
428	1.50E-05	495	1.21E-04	562	2.05E-04	629	3.40E-04	696	3.47E-05	763	4.50E-06
429	1.74E-05	496	1.23E-04	563	2.06E-04	630	5.96E-04	697	3.40E-05	764	4.20E-06
430	1.83E-05	497	1.26E-04	564	2.07E-04	631	9.55E-04	698	3.31E-05	765	4.20E-06
431	1.94E-05	498	1.29E-04	565	2.10E-04	632	8.92E-04	699	3.18E-05	766	4.10E-06
432	2.16E-05	499	1.32E-04	566	2.11E-04	633	5.55E-04	700	3.08E-05	767	4.00E-06
433	2.30E-05	500	1.35E-04	567	2.13E-04	634	4.41E-04	701	2.98E-05	768	3.90E-06
434	2.50E-05	501	1.37E-04	568	2.13E-04	635	6.40E-04	702	2.92E-05	769	3.70E-06
435	2.78E-05	502	1.41E-04	569	2.15E-04	636	6.78E-04	703	2.81E-05	770	3.70E-06
436	2.96E-05	503	1.43E-04	570	2.16E-04	637	4.29E-04	704	2.73E-05	771	3.40E-06
437	3.19E-05	504	1.44E-04	571	2.18E-04	638	2.61E-04	705	2.65E-05	772	3.30E-06
438	3.44E-05	505	1.46E-04	572	2.19E-04	639	2.03E-04	706	2.55E-05	773	3.40E-06
439	3.78E-05	506	1.48E-04	573	2.20E-04	640	1.79E-04	707	2.52E-05	774	3.20E-06
440	4.08E-05	507	1.50E-04	574	2.21E-04	641	1.67E-04	708	2.44E-05	775	3.10E-06
441	4.44E-05	508	1.51E-04	575	2.23E-04	642	1.61E-04	709	2.34E-05	776	3.10E-06
442	4.83E-05	509	1.52E-04	576	2.24E-04	643	1.56E-04	710	2.24E-05	777	2.90E-06
443	5.25E-05	510	1.53E-04	577	2.25E-04	644	1.54E-04	711	2.19E-05	778	2.90E-06
444	5.69E-05	511	1.55E-04	578	2.26E-04	645	1.52E-04	712	2.13E-05	779	2.70E-06
445	6.25E-05	512	1.54E-04	579	2.27E-04	646	1.62E-04	713	2.03E-05	780	2.70E-06
446	6.87E-05	513	1.56E-04	580	2.29E-04	647	2.20E-04	714	2.02E-05	N/A	N/A

IES TM-30-18 Color Rendition Result (CCT Setting=3500K):

ANSI/IES TM-30-18 Color Rendition Report

Source: BXRV-TR-2750G-06F7-B-23
Date: 2025/4/9

Manufacturer: RAB LIGHTING INC.
Model: TK22S[blank, B] (50%, 3500K)



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

x **0.3980**
 y **0.3930**
 u' **0.2301**
 v' **0.5111**

CIE 13.3-1995 (CRI)	
R_a	97
R_g	90

Spectrum Data (CCT Setting=3500K):

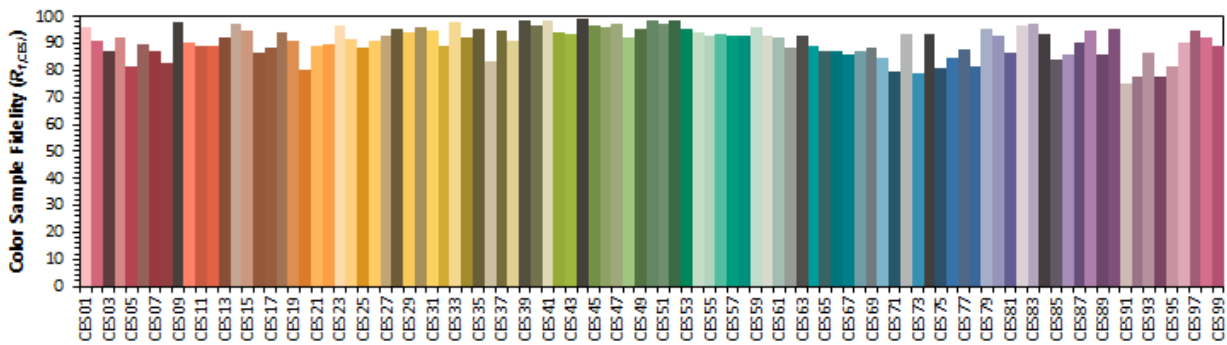
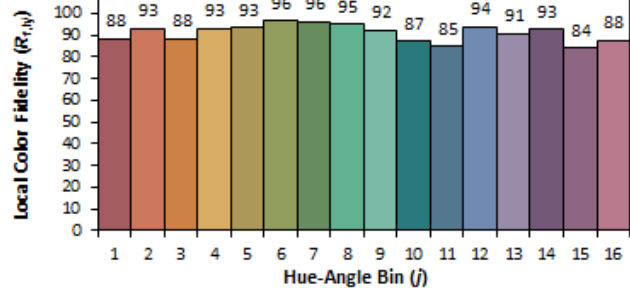
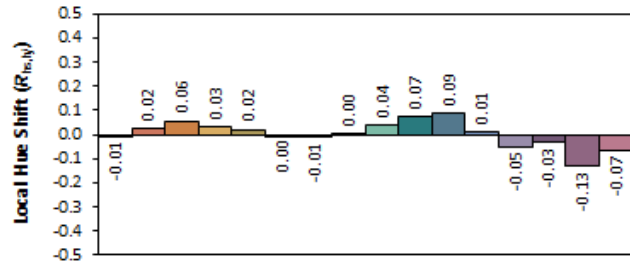
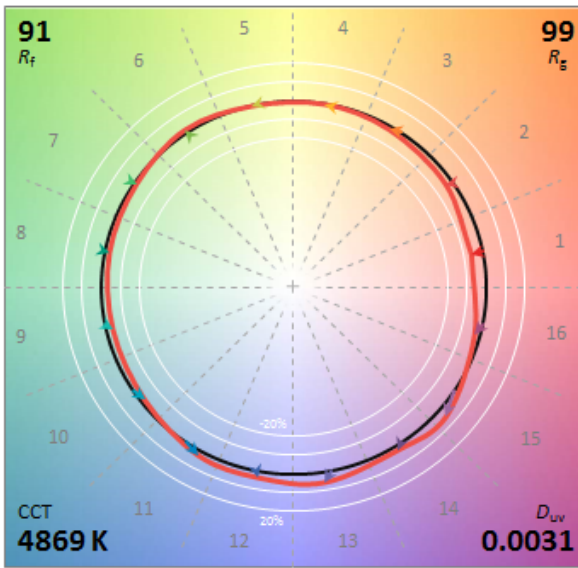
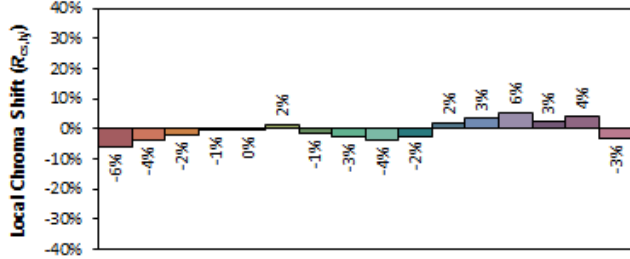
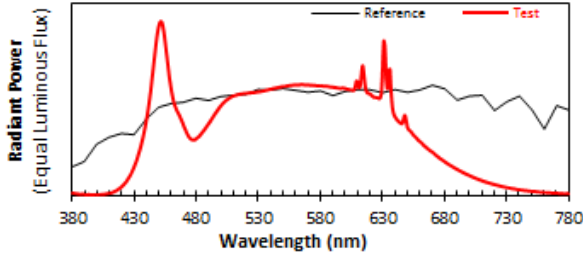
Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	9.80E-06	447	1.59E-04	514	2.10E-04	581	2.40E-04	648	2.65E-04	715	1.67E-05
381	5.60E-06	448	1.76E-04	515	2.11E-04	582	2.40E-04	649	2.15E-04	716	1.63E-05
382	1.01E-05	449	1.92E-04	516	2.12E-04	583	2.39E-04	650	1.51E-04	717	1.60E-05
383	2.10E-06	450	2.10E-04	517	2.12E-04	584	2.40E-04	651	1.30E-04	718	1.53E-05
384	7.20E-06	451	2.26E-04	518	2.11E-04	585	2.41E-04	652	1.28E-04	719	1.48E-05
385	7.30E-06	452	2.38E-04	519	2.11E-04	586	2.40E-04	653	1.26E-04	720	1.42E-05
386	0.00E+00	453	2.45E-04	520	2.12E-04	587	2.40E-04	654	1.16E-04	721	1.40E-05
387	1.00E-06	454	2.47E-04	521	2.10E-04	588	2.40E-04	655	1.09E-04	722	1.34E-05
388	2.90E-06	455	2.43E-04	522	2.11E-04	589	2.40E-04	656	1.06E-04	723	1.32E-05
389	1.70E-06	456	2.35E-04	523	2.12E-04	590	2.38E-04	657	1.03E-04	724	1.26E-05
390	4.00E-06	457	2.24E-04	524	2.12E-04	591	2.36E-04	658	9.70E-05	725	1.22E-05
391	0.00E+00	458	2.10E-04	525	2.13E-04	592	2.36E-04	659	9.23E-05	726	1.18E-05
392	2.20E-06	459	1.95E-04	526	2.12E-04	593	2.35E-04	660	9.03E-05	727	1.16E-05
393	1.40E-06	460	1.82E-04	527	2.13E-04	594	2.34E-04	661	8.90E-05	728	1.10E-05
394	1.70E-06	461	1.69E-04	528	2.13E-04	595	2.33E-04	662	8.45E-05	729	1.07E-05
395	5.00E-07	462	1.59E-04	529	2.12E-04	596	2.33E-04	663	8.04E-05	730	1.05E-05
396	5.00E-07	463	1.53E-04	530	2.14E-04	597	2.34E-04	664	7.72E-05	731	1.01E-05
397	2.00E-07	464	1.47E-04	531	2.13E-04	598	2.40E-04	665	7.51E-05	732	9.90E-06
398	1.90E-06	465	1.44E-04	532	2.13E-04	599	2.40E-04	666	7.31E-05	733	9.70E-06
399	2.10E-06	466	1.41E-04	533	2.15E-04	600	2.36E-04	667	7.19E-05	734	9.40E-06
400	1.10E-06	467	1.39E-04	534	2.15E-04	601	2.33E-04	668	6.97E-05	735	8.90E-06
401	9.00E-07	468	1.38E-04	535	2.16E-04	602	2.32E-04	669	7.01E-05	736	8.60E-06
402	1.20E-06	469	1.37E-04	536	2.17E-04	603	2.32E-04	670	7.16E-05	737	8.30E-06
403	3.00E-07	470	1.35E-04	537	2.17E-04	604	2.34E-04	671	6.97E-05	738	8.00E-06
404	1.40E-06	471	1.31E-04	538	2.17E-04	605	2.33E-04	672	6.54E-05	739	7.80E-06
405	1.80E-06	472	1.29E-04	539	2.18E-04	606	2.32E-04	673	6.24E-05	740	7.60E-06
406	1.40E-06	473	1.26E-04	540	2.19E-04	607	2.38E-04	674	6.01E-05	741	7.50E-06
407	1.90E-06	474	1.23E-04	541	2.20E-04	608	2.83E-04	675	5.73E-05	742	7.30E-06
408	2.40E-06	475	1.19E-04	542	2.22E-04	609	3.51E-04	676	5.53E-05	743	7.00E-06
409	3.10E-06	476	1.17E-04	543	2.21E-04	610	3.33E-04	677	5.37E-05	744	6.70E-06
410	2.80E-06	477	1.16E-04	544	2.23E-04	611	2.74E-04	678	5.21E-05	745	6.60E-06
411	3.20E-06	478	1.14E-04	545	2.23E-04	612	3.04E-04	679	5.01E-05	746	6.40E-06
412	3.50E-06	479	1.14E-04	546	2.25E-04	613	4.56E-04	680	4.86E-05	747	6.40E-06
413	4.10E-06	480	1.15E-04	547	2.25E-04	614	5.52E-04	681	4.74E-05	748	6.10E-06
414	5.00E-06	481	1.17E-04	548	2.26E-04	615	4.49E-04	682	4.57E-05	749	5.80E-06
415	5.00E-06	482	1.21E-04	549	2.26E-04	616	3.19E-04	683	4.50E-05	750	5.60E-06
416	5.30E-06	483	1.24E-04	550	2.28E-04	617	2.66E-04	684	4.34E-05	751	5.40E-06
417	7.50E-06	484	1.28E-04	551	2.30E-04	618	2.53E-04	685	4.17E-05	752	5.50E-06
418	7.50E-06	485	1.32E-04	552	2.29E-04	619	2.55E-04	686	4.10E-05	753	5.00E-06
419	8.90E-06	486	1.36E-04	553	2.30E-04	620	2.56E-04	687	3.96E-05	754	5.20E-06
420	1.00E-05	487	1.41E-04	554	2.31E-04	621	2.47E-04	688	3.89E-05	755	4.80E-06
421	1.06E-05	488	1.45E-04	555	2.32E-04	622	2.40E-04	689	3.73E-05	756	4.70E-06
422	1.31E-05	489	1.49E-04	556	2.33E-04	623	2.37E-04	690	3.66E-05	757	4.40E-06
423	1.42E-05	490	1.52E-04	557	2.34E-04	624	2.42E-04	691	3.52E-05	758	4.40E-06
424	1.58E-05	491	1.57E-04	558	2.35E-04	625	2.48E-04	692	3.43E-05	759	4.30E-06
425	1.77E-05	492	1.60E-04	559	2.34E-04	626	2.52E-04	693	3.33E-05	760	4.40E-06
426	1.98E-05	493	1.64E-04	560	2.36E-04	627	2.55E-04	694	3.24E-05	761	4.00E-06
427	2.23E-05	494	1.67E-04	561	2.37E-04	628	2.64E-04	695	3.14E-05	762	4.00E-06
428	2.42E-05	495	1.72E-04	562	2.37E-04	629	3.24E-04	696	3.05E-05	763	3.90E-06
429	2.67E-05	496	1.76E-04	563	2.37E-04	630	5.95E-04	697	2.93E-05	764	3.50E-06
430	3.00E-05	497	1.79E-04	564	2.38E-04	631	9.59E-04	698	2.85E-05	765	3.90E-06
431	3.27E-05	498	1.82E-04	565	2.38E-04	632	8.70E-04	699	2.79E-05	766	3.40E-06
432	3.61E-05	499	1.86E-04	566	2.39E-04	633	5.21E-04	700	2.70E-05	767	3.60E-06
433	3.94E-05	500	1.90E-04	567	2.39E-04	634	4.21E-04	701	2.59E-05	768	3.50E-06
434	4.30E-05	501	1.93E-04	568	2.38E-04	635	6.34E-04	702	2.53E-05	769	3.20E-06
435	4.83E-05	502	1.95E-04	569	2.39E-04	636	6.64E-04	703	2.44E-05	770	3.20E-06
436	5.33E-05	503	1.98E-04	570	2.40E-04	637	4.03E-04	704	2.38E-05	771	3.10E-06
437	5.82E-05	504	2.00E-04	571	2.40E-04	638	2.38E-04	705	2.31E-05	772	2.80E-06
438	6.48E-05	505	2.02E-04	572	2.39E-04	639	1.84E-04	706	2.21E-05	773	3.00E-06
439	7.10E-05	506	2.05E-04	573	2.40E-04	640	1.61E-04	707	2.15E-05	774	2.90E-06
440	7.84E-05	507	2.06E-04	574	2.40E-04	641	1.51E-04	708	2.08E-05	775	2.80E-06
441	8.57E-05	508	2.07E-04	575	2.40E-04	642	1.44E-04	709	2.04E-05	776	2.60E-06
442	9.32E-05	509	2.08E-04	576	2.40E-04	643	1.40E-04	710	1.96E-05	777	2.60E-06
443	1.05E-04	510	2.08E-04	577	2.39E-04	644	1.38E-04	711	1.90E-05	778	2.30E-06
444	1.15E-04	511	2.09E-04	578	2.39E-04	645	1.36E-04	712	1.85E-05	779	2.50E-06
445	1.29E-04	512	2.11E-04	579	2.41E-04	646	1.47E-04	713	1.80E-05	780	2.50E-06
446	1.43E-04	513	2.12E-04	580	2.39E-04	647	2.10E-04	714	1.72E-05	N/A	N/A

IES TM-30-18 Color Rendition Result (CCT Setting=5000K):

ANSI/IES TM-30-18 Color Rendition Report

Source: BXRV-TR-2750G-06F7-B-23
Date: 2025/4/9

Manufacturer: RAB LIGHTING INC.
Model: TK22S[blank, B] (100%, 5000K)



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

x **0.3497**
 y **0.3616**
 u' **0.2107**
 v' **0.4901**

CIE 13.3-1995 (CRI)	
R_a	92
R_g	55

Spectrum Data (CCT Setting=5000K):

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	1.45E-05	447	8.51E-04	514	5.79E-04	581	6.29E-04	648	4.60E-04	715	7.50E-05
381	1.38E-05	448	9.09E-04	515	5.81E-04	582	6.27E-04	649	4.32E-04	716	7.25E-05
382	1.31E-05	449	9.54E-04	516	5.83E-04	583	6.26E-04	650	3.95E-04	717	7.05E-05
383	1.13E-05	450	9.82E-04	517	5.82E-04	584	6.25E-04	651	3.79E-04	718	6.82E-05
384	9.90E-06	451	9.96E-04	518	5.84E-04	585	6.26E-04	652	3.72E-04	719	6.64E-05
385	9.00E-06	452	9.91E-04	519	5.85E-04	586	6.25E-04	653	3.66E-04	720	6.43E-05
386	6.70E-06	453	9.64E-04	520	5.85E-04	587	6.24E-04	654	3.56E-04	721	6.24E-05
387	6.60E-06	454	9.17E-04	521	5.87E-04	588	6.23E-04	655	3.47E-04	722	6.06E-05
388	1.00E-05	455	8.61E-04	522	5.86E-04	589	6.22E-04	656	3.40E-04	723	5.91E-05
389	8.00E-06	456	8.01E-04	523	5.86E-04	590	6.22E-04	657	3.33E-04	724	5.70E-05
390	5.80E-06	457	7.39E-04	524	5.90E-04	591	6.18E-04	658	3.25E-04	725	5.50E-05
391	4.00E-06	458	6.81E-04	525	5.90E-04	592	6.19E-04	659	3.16E-04	726	5.38E-05
392	3.90E-06	459	6.34E-04	526	5.89E-04	593	6.17E-04	660	3.11E-04	727	5.15E-05
393	7.60E-06	460	5.88E-04	527	5.91E-04	594	6.16E-04	661	3.05E-04	728	5.04E-05
394	4.60E-06	461	5.55E-04	528	5.92E-04	595	6.15E-04	662	2.98E-04	729	4.89E-05
395	6.20E-06	462	5.26E-04	529	5.94E-04	596	6.15E-04	663	2.89E-04	730	4.67E-05
396	5.60E-06	463	5.06E-04	530	5.94E-04	597	6.14E-04	664	2.84E-04	731	4.58E-05
397	5.00E-06	464	4.89E-04	531	5.95E-04	598	6.16E-04	665	2.78E-04	732	4.47E-05
398	5.80E-06	465	4.75E-04	532	5.96E-04	599	6.15E-04	666	2.72E-04	733	4.31E-05
399	6.40E-06	466	4.60E-04	533	5.98E-04	600	6.13E-04	667	2.65E-04	734	4.22E-05
400	5.40E-06	467	4.45E-04	534	5.99E-04	601	6.11E-04	668	2.60E-04	735	4.05E-05
401	6.30E-06	468	4.29E-04	535	6.00E-04	602	6.09E-04	669	2.55E-04	736	3.90E-05
402	5.90E-06	469	4.13E-04	536	6.03E-04	603	6.06E-04	670	2.51E-04	737	3.82E-05
403	7.10E-06	470	3.93E-04	537	6.03E-04	604	6.06E-04	671	2.46E-04	738	3.67E-05
404	7.50E-06	471	3.77E-04	538	6.06E-04	605	6.05E-04	672	2.38E-04	739	3.53E-05
405	7.50E-06	472	3.60E-04	539	6.08E-04	606	6.03E-04	673	2.32E-04	740	3.46E-05
406	9.20E-06	473	3.46E-04	540	6.08E-04	607	6.04E-04	674	2.26E-04	741	3.35E-05
407	1.02E-05	474	3.34E-04	541	6.11E-04	608	6.24E-04	675	2.21E-04	742	3.26E-05
408	1.17E-05	475	3.26E-04	542	6.13E-04	609	6.56E-04	676	2.15E-04	743	3.16E-05
409	1.31E-05	476	3.22E-04	543	6.14E-04	610	6.47E-04	677	2.10E-04	744	3.06E-05
410	1.42E-05	477	3.20E-04	544	6.17E-04	611	6.17E-04	678	2.06E-04	745	2.95E-05
411	1.59E-05	478	3.19E-04	545	6.18E-04	612	6.27E-04	679	2.01E-04	746	2.90E-05
412	1.80E-05	479	3.21E-04	546	6.20E-04	613	6.97E-04	680	1.96E-04	747	2.82E-05
413	2.12E-05	480	3.28E-04	547	6.21E-04	614	7.44E-04	681	1.90E-04	748	2.71E-05
414	2.46E-05	481	3.33E-04	548	6.22E-04	615	6.94E-04	682	1.86E-04	749	2.64E-05
415	2.80E-05	482	3.39E-04	549	6.24E-04	616	6.28E-04	683	1.81E-04	750	2.56E-05
416	3.22E-05	483	3.47E-04	550	6.25E-04	617	5.98E-04	684	1.76E-04	751	2.52E-05
417	3.81E-05	484	3.56E-04	551	6.25E-04	618	5.88E-04	685	1.72E-04	752	2.40E-05
418	4.15E-05	485	3.66E-04	552	6.26E-04	619	5.85E-04	686	1.68E-04	753	2.33E-05
419	4.79E-05	486	3.74E-04	553	6.28E-04	620	5.83E-04	687	1.64E-04	754	2.28E-05
420	5.43E-05	487	3.84E-04	554	6.29E-04	621	5.75E-04	688	1.60E-04	755	2.20E-05
421	6.12E-05	488	3.95E-04	555	6.30E-04	622	5.68E-04	689	1.55E-04	756	2.14E-05
422	6.96E-05	489	4.04E-04	556	6.31E-04	623	5.63E-04	690	1.52E-04	757	2.05E-05
423	7.71E-05	490	4.15E-04	557	6.32E-04	624	5.63E-04	691	1.48E-04	758	1.99E-05
424	8.75E-05	491	4.25E-04	558	6.33E-04	625	5.62E-04	692	1.44E-04	759	1.94E-05
425	9.93E-05	492	4.36E-04	559	6.34E-04	626	5.60E-04	693	1.40E-04	760	1.89E-05
426	1.10E-04	493	4.47E-04	560	6.34E-04	627	5.57E-04	694	1.36E-04	761	1.82E-05
427	1.23E-04	494	4.58E-04	561	6.34E-04	628	5.58E-04	695	1.33E-04	762	1.82E-05
428	1.38E-04	495	4.69E-04	562	6.33E-04	629	5.82E-04	696	1.29E-04	763	1.68E-05
429	1.54E-04	496	4.79E-04	563	6.34E-04	630	7.09E-04	697	1.26E-04	764	1.71E-05
430	1.71E-04	497	4.89E-04	564	6.36E-04	631	8.84E-04	698	1.22E-04	765	1.59E-05
431	1.89E-04	498	5.00E-04	565	6.35E-04	632	8.45E-04	699	1.19E-04	766	1.57E-05
432	2.09E-04	499	5.10E-04	566	6.35E-04	633	6.70E-04	700	1.16E-04	767	1.53E-05
433	2.33E-04	500	5.17E-04	567	6.34E-04	634	6.11E-04	701	1.12E-04	768	1.48E-05
434	2.56E-04	501	5.26E-04	568	6.34E-04	635	7.08E-04	702	1.09E-04	769	1.42E-05
435	2.82E-04	502	5.33E-04	569	6.34E-04	636	7.23E-04	703	1.06E-04	770	1.37E-05
436	3.09E-04	503	5.40E-04	570	6.34E-04	637	5.91E-04	704	1.03E-04	771	1.37E-05
437	3.40E-04	504	5.46E-04	571	6.33E-04	638	5.02E-04	705	1.00E-04	772	1.33E-05
438	3.75E-04	505	5.51E-04	572	6.32E-04	639	4.69E-04	706	9.74E-05	773	1.26E-05
439	4.11E-04	506	5.56E-04	573	6.33E-04	640	4.52E-04	707	9.46E-05	774	1.23E-05
440	4.51E-04	507	5.61E-04	574	6.31E-04	641	4.41E-04	708	9.22E-05	775	1.20E-05
441	4.98E-04	508	5.65E-04	575	6.31E-04	642	4.31E-04	709	8.92E-05	776	1.15E-05
442	5.45E-04	509	5.70E-04	576	6.30E-04	643	4.25E-04	710	8.63E-05	777	1.10E-05
443	6.01E-04	510	5.71E-04	577	6.28E-04	644	4.18E-04	711	8.41E-05	778	1.08E-05
444	6.61E-04	511	5.73E-04	578	6.29E-04	645	4.13E-04	712	8.18E-05	779	1.06E-05
445	7.26E-04	512	5.75E-04	579	6.29E-04	646	4.14E-04	713	7.93E-05	780	1.06E-05
446	7.91E-04	513	5.78E-04	580	6.27E-04	647	4.39E-04	714	7.68E-05	N/A	N/A

Goniophotometer Test Results (CCT Setting=2700K):

Test Condition:

Test Ambient (°C)	Test Humidity (%)	Orientation	Stabilization Time (minute)	Test Time (minute)
25.1	40.0	Face Down	90	25

Electrical Data:

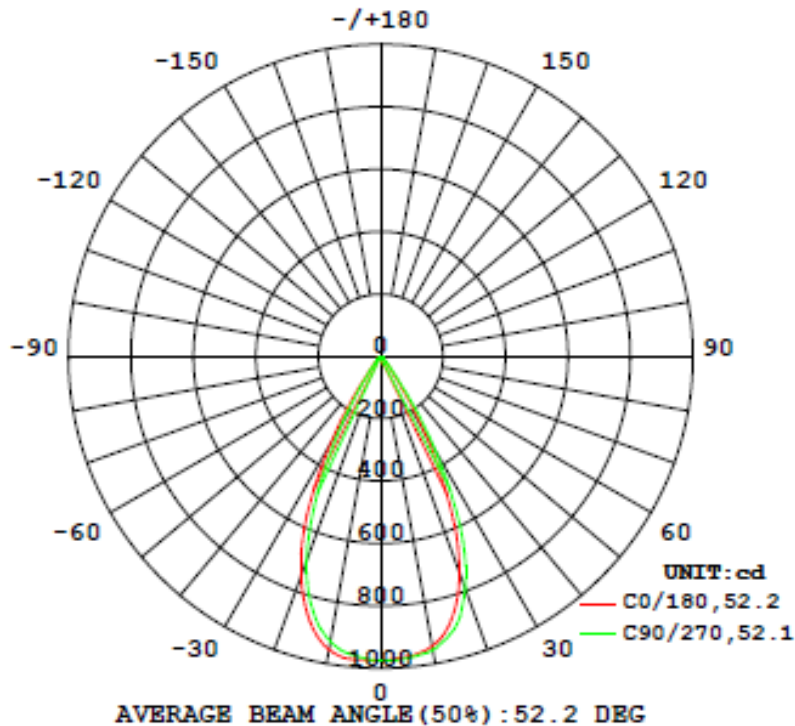
Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor
120.0	60	0.0688	7.94	0.9611

Goniophotometer Data:

Parameter	Results
Total Luminous (lm)	695.7
Luminous Efficacy (lm/W)	87.62
Zonal Lumens Distribution (0-90°)	100.0%
Beam Angle (°)	52.2
Center Beam Intensity (cd)	975

Luminous Intensity Distribution Diagram:

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



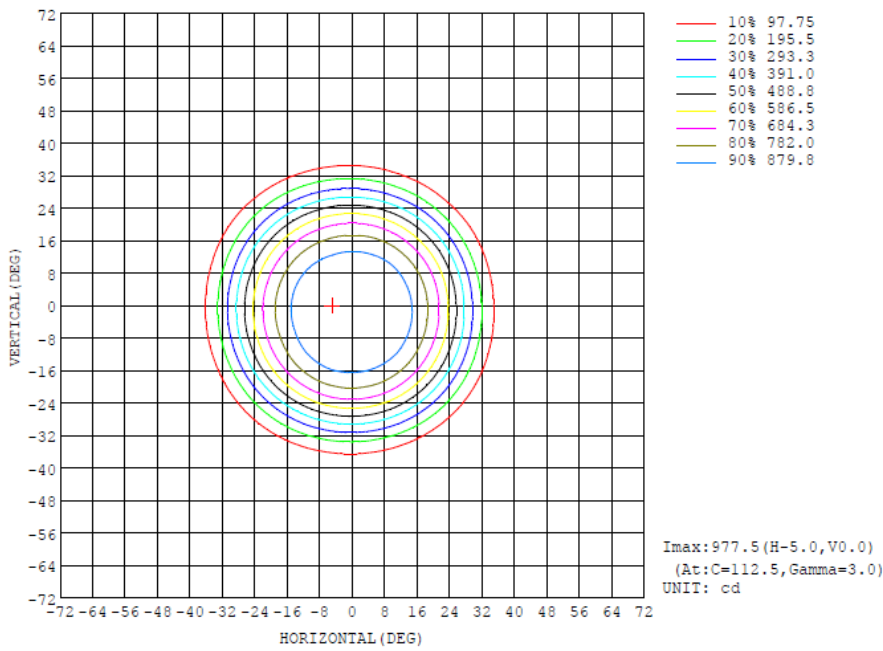
Zonal Flux Diagram:

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ_{zone}	Φ_{total}	$\Phi_{lum, lamp}$
10	948.8	989.6	988.7	961.8	954.4	941.1	928.7	928.9	0- 10	91.82	91.82	10.2,10.2
20	786.6	772.6	791.9	780.5	748.8	716.2	696.5	710.7	10- 20	242.6	334.4	48.1,48.1
30	279.1	324.9	382.1	342.7	325.9	280.1	248.8	248.2	20- 30	240.2	574.6	82.6,82.6
40	33.32	34.78	45.45	42.99	41.98	33.68	32.52	28.84	30- 40	78.76	654.4	94.1,94.1
50	15.45	15.32	16.49	15.99	17.01	15.79	15.62	14.74	40- 50	17.08	671.4	96.5,96.5
60	5.448	5.844	5.746	5.169	5.349	5.313	5.786	5.582	50- 60	10.79	682.2	98.1,98.1
70	2.428	2.342	2.432	2.771	2.994	2.987	2.778	2.576	60- 70	7.049	689.2	99.1,99.1
80	2.820	2.882	2.081	2.269	2.400	2.514	2.209	2.982	70- 80	4.837	694.1	99.8,99.8
90	0.0024	0.0022	0.0026	0.0048	0.0072	0.0020	0.0006	0.0019	80- 90	1.849	695.6	100,100
100	0.0017	0.0018	0.0006	0.0019	0.0009	0.0006	0.0004	0.0011	90-100	0.0016	695.6	100,100
110	0.0009	0.0013	0.0011	0.0018	0.0002	0.0006	0.0006	0.0011	100-110	0.0010	695.6	100,100
120	0.0017	0.0011	0.0009	0.0018	0.0004	0.0007	0.0006	0.0011	110-120	0.0010	695.6	100,100
130	0.0011	0.0013	0.0002	0.0018	0.0008	0.0011	0.0000	0.0011	120-130	0.0008	695.6	100,100
140	0.0022	0.0022	0.0013	0.0022	0.0013	0.0017	0.0008	0.0022	130-140	0.0008	695.6	100,100
150	0.0069	0.0069	0.0086	0.0069	0.0043	0.0048	0.0047	0.0049	140-150	0.0020	695.6	100,100
160	0.0108	0.0098	0.0116	0.0108	0.0080	0.0078	0.0081	0.0071	150-160	0.0038	695.7	100,100
170	0.0090	0.0098	0.0102	0.0122	0.0089	0.0093	0.0081	0.0090	160-170	0.0027	695.7	100,100
180	0.0004	0	0.0006	0	0.0002	0.0009	0	0.0007	170-180	0.0008	695.7	100,100

DEG LUMINOUS INTENSITY: cd UNIT: lm

Isocandela Diagram:



Luminous Distribution Intensity Data:

Table--1 UNIT: cd

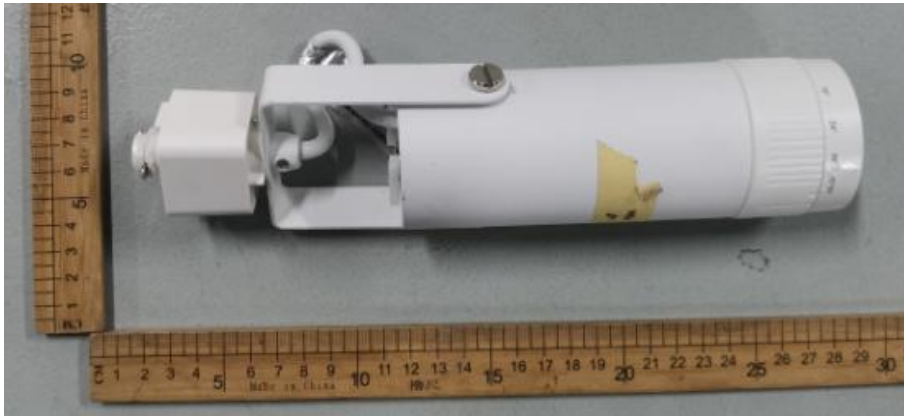
C (DEG) \ y (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975	975			
5	966	966	968	970	971	972	976	975	976	973	970	967	962	959	964	967			
10	943	944	954	952	956	959	961	952	954	947	941	931	929	932	936	939			
15	873	886	896	903	906	909	904	890	879	870	856	844	844	849	860	867			
20	737	752	773	786	792	792	781	763	749	734	716	700	697	702	711	726			
25	523	546	570	591	602	600	590	574	561	536	512	489	478	478	487	507			
30	279	305	324	342	352	351	343	334	325	303	280	259	246	240	245	261			
35	95.8	109	120	133	142	142	137	133	134	123	102	90.7	85.7	81.0	78.6	85.8			
40	33.3	34.9	34.8	40.8	45.5	43.9	43.0	43.3	42.0	38.5	33.7	32.5	32.5	30.8	28.5	30.3			
45	20.5	20.7	19.9	20.7	22.0	21.7	20.6	21.5	22.3	21.7	20.1	20.2	20.3	19.7	18.7	19.4			
50	15.4	15.6	15.3	15.8	16.5	16.5	16.0	16.6	17.0	16.7	15.8	15.7	15.6	15.3	14.7	15.0			
55	11.3	11.4	11.6	11.9	12.2	12.4	12.4	12.7	13.0	12.8	12.3	12.0	11.8	11.5	11.3	11.3			
60	8.44	8.44	8.54	8.64	8.75	8.95	9.17	9.41	9.55	9.51	9.31	9.01	8.79	8.66	8.58	8.50			
65	6.77	6.76	6.80	6.80	6.81	6.97	7.18	7.44	7.55	7.57	7.44	7.22	7.06	6.99	6.93	6.86			
70	5.42	5.37	5.34	5.36	5.43	5.62	5.77	5.95	5.99	6.04	5.99	5.89	5.77	5.67	5.58	5.51			
75	4.43	4.42	4.44	4.47	4.55	4.67	4.82	4.96	5.07	5.11	5.08	4.98	4.84	4.70	4.60	4.53			
80	2.82	2.83	2.88	2.97	3.08	3.22	3.37	3.49	3.60	3.60	3.51	3.37	3.21	3.07	2.96	2.89			
85	1.02	1.07	1.15	1.25	1.38	1.51	1.63	1.71	1.81	1.78	1.68	1.54	1.37	1.24	1.14	1.09			
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
150	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01			
155	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
160	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
165	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
170	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
175	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01			
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

THD and PF Measurement Test Results:

Electrical Measurement:

CCT Setting	Voltage (V)	Frequency (Hz)	Current (A)	Wattage (W)	Power Factor	iTHD(%)
2700K	120.0	60	0.0688	7.94	0.9611	13.72
3500K	120.0	60	0.0672	7.76	0.9616	13.67
5000K	120.0	60	0.0686	7.92	0.9615	13.65

Photo of Sample:



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-F01-020	Temperature & Humidity Meter	2024-10-29	2025-10-28

*******End of Report*******