

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: 2025-09-25

Revised Date: N/A

1.0 Test Summary

DLC Technical Requirements V6.0

Track or Mono-Point Directional Luminaires					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	250		2469
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	155.3
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.9
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	10.45
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.985
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4972
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.9
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		83
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		90
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		104
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-3%
Zonal Lumen Requirement (0°-90°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥85%		99.4%
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		120.0
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.135
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.9
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-09-16	TKBEAM2B @15W5000K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @15W5000K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @15W5000K	-	250903025-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. TKBEAM2B @15W5000K, color tunable from 2700K, 3000K, 3500K, 4000K and 5000K.

Electrical Specification: 120Vac, 60Hz

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	TKBEAM2B @15W5000K	Sample ID	250903025-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

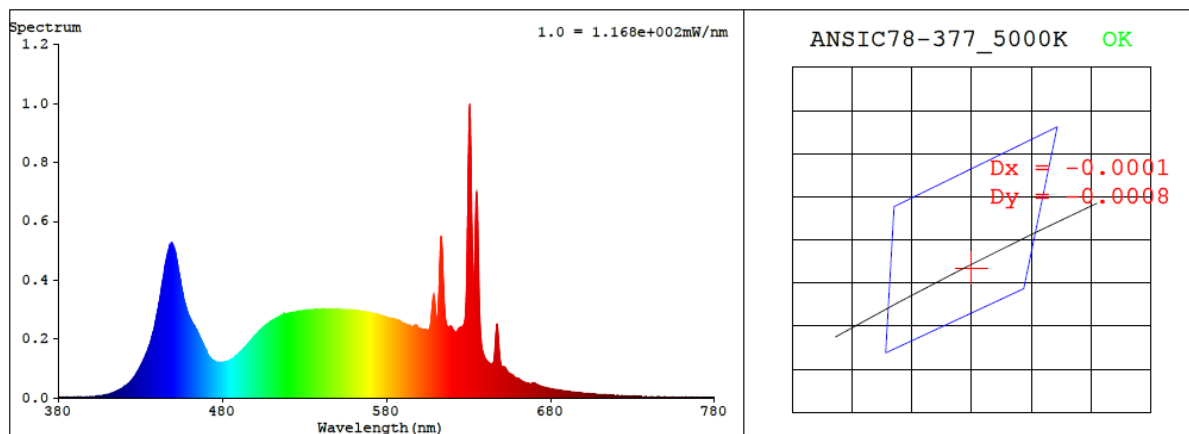
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.135	15.9	0.985

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4972	92.9	83	-0.0003	2.6	90	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3458$ $y = 0.3515$ / $u' = 0.2119$ $v' = 0.4847$ ($duv = -3.45e-04$)

CCT= 4972K Prcp WL: $L_d = 573.5\text{nm}$ Purity=9.2%

Peak WL: $L_p = 631\text{nm}$ FWHM: $\approx 3.6\text{nm}$ Ratio: R=18.0% G=77.5% B=4.5%

Render Index: $R_a = 92.9$ AvgR = 90.0 TM30: Rf=90 Rg=103

EEL: 0.09281 A++ Highest

R1 =96 R2 =93 R3 =88 R4 =93 R5 =94 R6 =90 R7 =94

R8 =95 R9 =83 R10=81 R11=92 R12=69 R13=95 R14=92 R15=96

4.1 Integrating Sphere Test

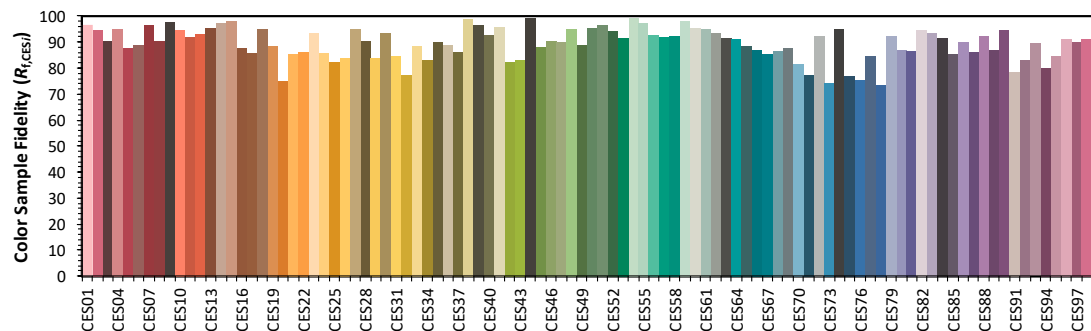
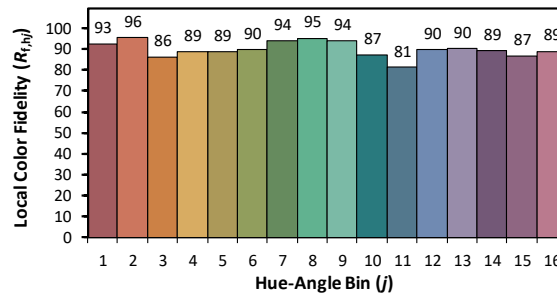
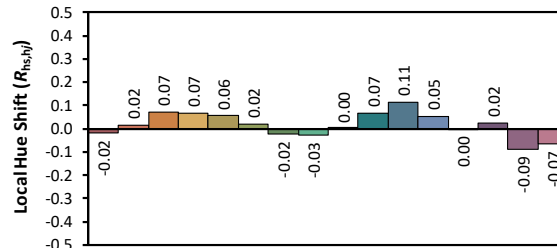
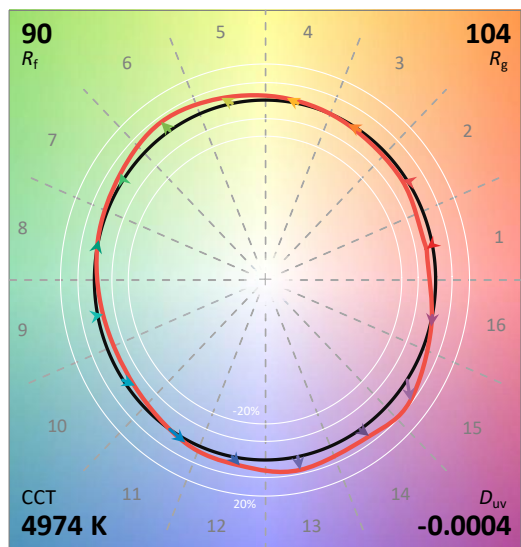
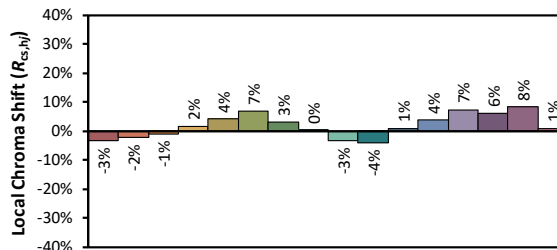
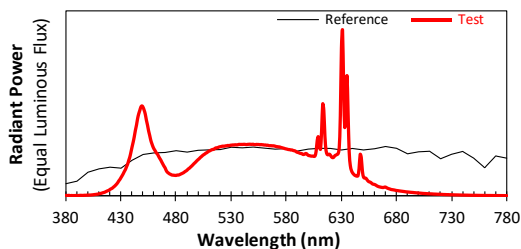
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @15W5000K



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

x 0.3457

y 0.3513

u' 0.2120

v' 0.4846

CIE 13.3-1995
(CRI)

R_a 93

R_9 83

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	3.10E-06	447	4.98E-04	514	2.72E-04	581	2.72E-04	648	2.23E-04	715	1.05E-05
381	2.30E-06	448	5.19E-04	515	2.76E-04	582	2.71E-04	649	1.46E-04	716	1.02E-05
382	2.80E-06	449	5.25E-04	516	2.80E-04	583	2.70E-04	650	1.10E-04	717	9.80E-06
383	3.00E-06	450	5.16E-04	517	2.81E-04	584	2.68E-04	651	1.04E-04	718	9.70E-06
384	1.20E-06	451	4.99E-04	518	2.83E-04	585	2.68E-04	652	1.04E-04	719	9.40E-06
385	2.50E-06	452	4.77E-04	519	2.86E-04	586	2.66E-04	653	9.64E-05	720	9.00E-06
386	1.80E-06	453	4.42E-04	520	2.87E-04	587	2.64E-04	654	8.77E-05	721	9.00E-06
387	2.00E-06	454	4.13E-04	521	2.88E-04	588	2.62E-04	655	8.28E-05	722	8.30E-06
388	1.90E-06	455	3.80E-04	522	2.90E-04	589	2.58E-04	656	8.05E-05	723	8.10E-06
389	2.60E-06	456	3.53E-04	523	2.90E-04	590	2.54E-04	657	7.65E-05	724	7.90E-06
390	2.00E-06	457	3.24E-04	524	2.90E-04	591	2.53E-04	658	7.06E-05	725	7.60E-06
391	2.20E-06	458	3.04E-04	525	2.92E-04	592	2.50E-04	659	6.82E-05	726	7.40E-06
392	2.60E-06	459	2.86E-04	526	2.93E-04	593	2.48E-04	660	6.67E-05	727	7.40E-06
393	3.40E-06	460	2.73E-04	527	2.94E-04	594	2.47E-04	661	6.37E-05	728	6.90E-06
394	3.30E-06	461	2.63E-04	528	2.93E-04	595	2.42E-04	662	5.94E-05	729	6.80E-06
395	2.90E-06	462	2.51E-04	529	2.95E-04	596	2.42E-04	663	5.60E-05	730	6.80E-06
396	3.30E-06	463	2.44E-04	530	2.96E-04	597	2.46E-04	664	5.36E-05	731	6.50E-06
397	3.80E-06	464	2.32E-04	531	2.97E-04	598	2.47E-04	665	5.20E-05	732	6.10E-06
398	3.80E-06	465	2.20E-04	532	2.97E-04	599	2.42E-04	666	5.05E-05	733	6.00E-06
399	4.50E-06	466	2.10E-04	533	2.98E-04	600	2.36E-04	667	4.94E-05	734	5.80E-06
400	4.20E-06	467	1.97E-04	534	2.98E-04	601	2.35E-04	668	4.90E-05	735	5.70E-06
401	5.10E-06	468	1.85E-04	535	2.98E-04	602	2.33E-04	669	5.10E-05	736	5.50E-06
402	4.90E-06	469	1.73E-04	536	2.99E-04	603	2.32E-04	670	5.14E-05	737	5.30E-06
403	5.60E-06	470	1.63E-04	537	3.01E-04	604	2.32E-04	671	4.78E-05	738	5.10E-06
404	6.20E-06	471	1.48E-04	538	3.00E-04	605	2.31E-04	672	4.45E-05	739	4.90E-06
405	7.00E-06	472	1.39E-04	539	3.00E-04	606	2.33E-04	673	4.21E-05	740	4.80E-06
406	7.90E-06	473	1.34E-04	540	3.00E-04	607	2.59E-04	674	4.01E-05	741	4.50E-06
407	8.60E-06	474	1.29E-04	541	3.01E-04	608	3.23E-04	675	3.77E-05	742	4.60E-06
408	9.70E-06	475	1.26E-04	542	3.01E-04	609	3.45E-04	676	3.65E-05	743	4.30E-06
409	1.05E-05	476	1.22E-04	543	3.00E-04	610	2.89E-04	677	3.55E-05	744	4.40E-06
410	1.24E-05	477	1.21E-04	544	2.99E-04	611	2.73E-04	678	3.44E-05	745	4.10E-06
411	1.36E-05	478	1.21E-04	545	3.01E-04	612	3.79E-04	679	3.29E-05	746	4.00E-06
412	1.53E-05	479	1.20E-04	546	3.01E-04	613	5.35E-04	680	3.15E-05	747	3.80E-06
413	1.74E-05	480	1.20E-04	547	3.02E-04	614	4.98E-04	681	3.08E-05	748	3.70E-06
414	1.95E-05	481	1.22E-04	548	3.01E-04	615	3.49E-04	682	2.97E-05	749	3.70E-06
415	2.11E-05	482	1.22E-04	549	3.01E-04	616	2.66E-04	683	2.88E-05	750	3.60E-06
416	2.43E-05	483	1.24E-04	550	3.01E-04	617	2.43E-04	684	2.79E-05	751	3.50E-06
417	2.75E-05	484	1.27E-04	551	2.99E-04	618	2.40E-04	685	2.71E-05	752	3.40E-06
418	3.03E-05	485	1.30E-04	552	2.99E-04	619	2.44E-04	686	2.62E-05	753	3.40E-06
419	3.30E-05	486	1.33E-04	553	3.01E-04	620	2.37E-04	687	2.54E-05	754	3.10E-06
420	3.80E-05	487	1.37E-04	554	3.00E-04	621	2.28E-04	688	2.43E-05	755	3.10E-06
421	4.15E-05	488	1.42E-04	555	3.00E-04	622	2.23E-04	689	2.35E-05	756	2.90E-06
422	4.50E-05	489	1.46E-04	556	2.99E-04	623	2.26E-04	690	2.30E-05	757	2.90E-06
423	5.07E-05	490	1.51E-04	557	3.00E-04	624	2.35E-04	691	2.24E-05	758	2.80E-06
424	5.60E-05	491	1.57E-04	558	2.99E-04	625	2.38E-04	692	2.16E-05	759	2.80E-06
425	6.23E-05	492	1.62E-04	559	2.98E-04	626	2.42E-04	693	2.09E-05	760	2.70E-06
426	6.93E-05	493	1.68E-04	560	2.97E-04	627	2.47E-04	694	2.04E-05	761	2.40E-06
427	7.76E-05	494	1.74E-04	561	2.97E-04	628	2.81E-04	695	1.99E-05	762	2.50E-06
428	8.81E-05	495	1.80E-04	562	2.95E-04	629	4.66E-04	696	1.90E-05	763	2.30E-06
429	9.65E-05	496	1.87E-04	563	2.96E-04	630	8.61E-04	697	1.85E-05	764	2.40E-06
430	1.08E-04	497	1.93E-04	564	2.94E-04	631	9.66E-04	698	1.79E-05	765	2.50E-06
431	1.18E-04	498	2.00E-04	565	2.93E-04	632	6.29E-04	699	1.74E-05	766	2.20E-06
432	1.30E-04	499	2.06E-04	566	2.93E-04	633	3.99E-04	700	1.69E-05	767	2.30E-06
433	1.43E-04	500	2.12E-04	567	2.92E-04	634	5.49E-04	701	1.64E-05	768	2.00E-06
434	1.54E-04	501	2.18E-04	568	2.92E-04	635	7.02E-04	702	1.58E-05	769	2.10E-06
435	1.71E-04	502	2.25E-04	569	2.91E-04	636	4.87E-04	703	1.52E-05	770	2.10E-06
436	1.86E-04	503	2.30E-04	570	2.90E-04	637	2.60E-04	704	1.46E-05	771	2.00E-06
437	2.08E-04	504	2.36E-04	571	2.88E-04	638	1.79E-04	705	1.41E-05	772	2.00E-06
438	2.28E-04	505	2.41E-04	572	2.87E-04	639	1.50E-04	706	1.38E-05	773	1.90E-06
439	2.56E-04	506	2.44E-04	573	2.86E-04	640	1.36E-04	707	1.33E-05	774	1.80E-06
440	2.86E-04	507	2.50E-04	574	2.85E-04	641	1.27E-04	708	1.29E-05	775	1.80E-06
441	3.14E-04	508	2.53E-04	575	2.83E-04	642	1.21E-04	709	1.26E-05	776	1.80E-06
442	3.45E-04	509	2.59E-04	576	2.81E-04	643	1.18E-04	710	1.22E-05	777	1.70E-06
443	3.82E-04	510	2.61E-04	577	2.79E-04	644	1.16E-04	711	1.19E-05	778	1.50E-06
444	4.13E-04	511	2.65E-04	578	2.78E-04	645	1.18E-04	712	1.17E-05	779	1.50E-06
445	4.51E-04	512	2.68E-04	579	2.75E-04	646	1.60E-04	713	1.12E-05	780	1.60E-06
446	4.78E-04	513	2.71E-04	580	2.74E-04	647	2.42E-04	714	1.07E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM2B @15W5000K	Sample ID	250903025-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	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	120.0	60	0.135	15.9	0.985
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

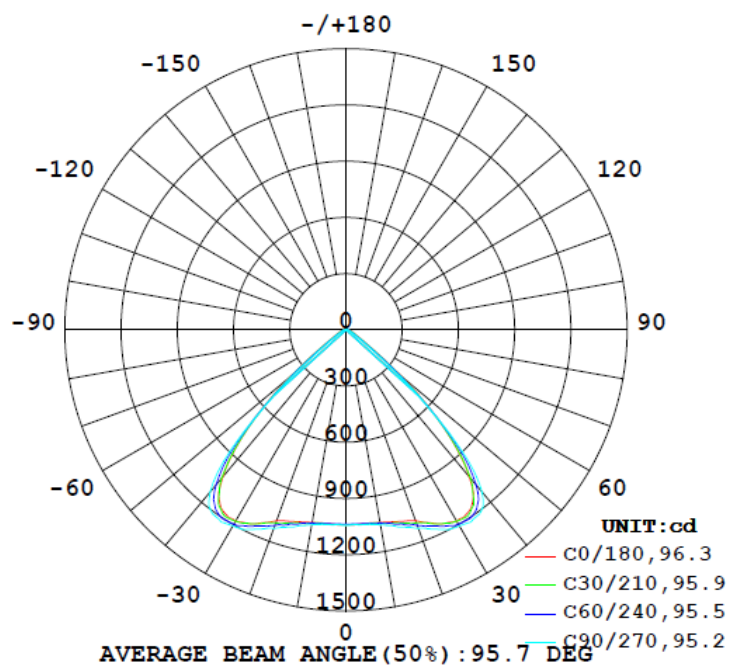
Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement
	C0-180	C90-270	C0-180	C90-270		(0°-90°)
2469	96.2	109.4	70.5	93.2	155.3	99.4%

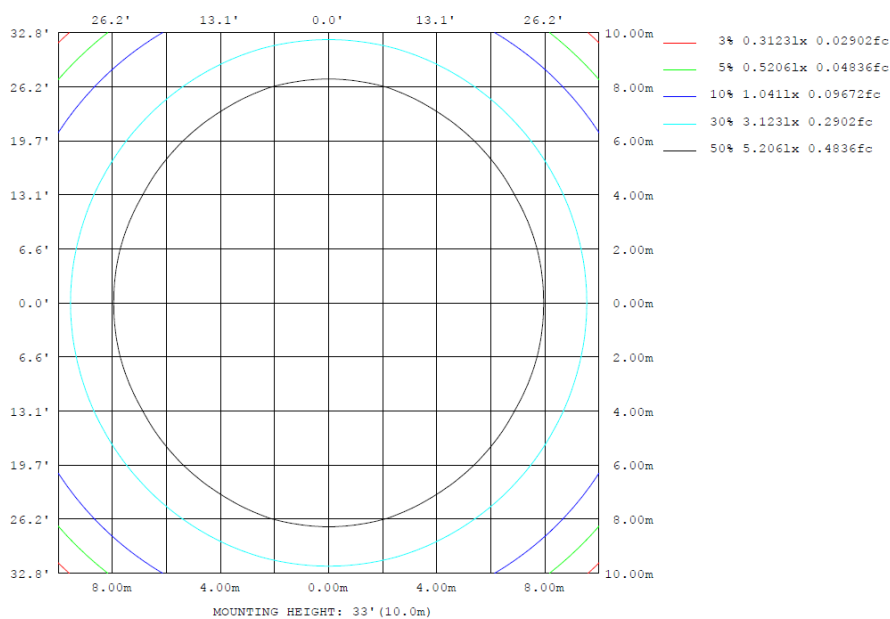
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	lum, lamp
10	1043	1052	1056	1052	1043	1052	1056	1052	0- 10	99.60	99.60	4.03, 4.03
20	1084	1108	1128	1108	1084	1108	1128	1108	10- 20	305.5	405.1	16.4, 16.4
30	1179	1190	1208	1190	1179	1190	1208	1190	20- 30	534.9	940.0	38.1, 38.1
40	1023	1048	1129	1048	1023	1048	1129	1048	30- 40	732.4	1672	67.7, 67.7
50	385.4	361.1	308.4	361.1	385.4	361.1	308.4	361.1	40- 50	563.6	2236	90.6, 90.6
60	76.05	68.13	47.74	68.13	76.05	68.13	47.74	68.13	50- 60	139.6	2376	96.2, 96.2
70	37.11	31.98	24.06	31.98	37.11	31.98	24.06	31.98	60- 70	43.96	2420	98.98
80	11.66	15.44	14.59	15.44	11.66	15.44	14.59	15.44	70- 80	23.53	2443	98.9, 98.9
90	2.037	7.703	8.362	7.703	2.037	7.703	8.362	7.703	80- 90	10.96	2454	99.4, 99.4
100	1.538	3.424	6.630	3.424	1.538	3.424	6.630	3.424	90-100	4.599	2459	99.6, 99.6
110	1.249	0.8565	3.133	0.8565	1.249	0.8565	3.133	0.8565	100-110	2.313	2461	99.7, 99.7
120	2.108	0.8559	0.7577	0.8559	2.108	0.8559	0.7577	0.8559	110-120	1.149	2462	99.7, 99.7
130	4.323	0.9510	0.8528	0.9510	4.323	0.9510	0.8528	0.9510	120-130	1.017	2463	99.8, 99.8
140	5.862	1.807	1.515	1.807	5.862	1.807	1.515	1.807	130-140	1.361	2465	99.8, 99.8
150	6.438	2.568	2.179	2.568	6.438	2.568	2.179	2.568	140-150	1.754	2466	99.9, 99.9
160	6.438	2.758	2.273	2.758	6.438	2.758	2.273	2.758	150-160	1.433	2468	99.9, 99.9
170	9.220	3.898	3.218	3.898	9.220	3.898	3.218	3.898	160-170	1.043	2469	100, 100
180	9.513	4.089	3.504	4.089	9.513	4.089	3.504	4.089	170-180	0.4637	2469	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	99.60	0-10	99.60	4.03%
10-20	305.54	0-20	405.14	16.41%
20-30	534.88	0-30	940.02	38.08%
30-40	732.43	0-40	1672.45	67.74%
40-50	563.58	0-50	2236.03	90.57%
50-60	139.61	0-60	2375.64	96.23%
60-70	43.96	0-70	2419.60	98.01%
70-80	23.53	0-80	2443.13	98.96%
80-90	10.96	0-90	2454.09	99.41%
90-100	4.60	0-100	2458.69	99.59%
100-110	2.31	0-110	2461.00	99.69%
110-120	1.15	0-120	2462.15	99.73%
120-130	1.02	0-130	2463.17	99.77%
130-140	1.36	0-140	2464.53	99.83%
140-150	1.75	0-150	2466.28	99.90%
150-160	1.43	0-160	2467.71	99.96%
160-170	1.04	0-170	2468.75	100.00%
170-180	0.47	0-180	2469.22	100.02%

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	1039	1040	1041	1041	1038	1044	1042	1044	1038	1041	1041	1040	1039	1040	1041	1041	1038	1044	1042
5	1037	1039	1041	1042	1037	1043	1043	1043	1037	1042	1041	1039	1037	1039	1041	1042	1037	1043	1043
10	1043	1050	1046	1052	1046	1057	1056	1057	1046	1052	1046	1050	1043	1050	1046	1052	1046	1057	1056
15	1059	1061	1066	1081	1073	1083	1089	1083	1073	1081	1066	1061	1059	1061	1066	1081	1073	1083	1089
20	1084	1100	1096	1108	1110	1124	1128	1124	1110	1108	1096	1100	1084	1100	1096	1108	1110	1124	1128
25	1141	1146	1141	1152	1155	1168	1175	1168	1155	1152	1141	1146	1141	1146	1141	1152	1155	1168	1175
30	1179	1187	1178	1190	1197	1209	1208	1209	1197	1190	1178	1187	1179	1187	1178	1190	1197	1209	1208
35	1162	1169	1167	1186	1193	1221	1215	1221	1193	1186	1167	1169	1162	1169	1167	1186	1193	1221	1215
40	1023	1029	1033	1048	1079	1123	1129	1123	1079	1048	1033	1029	1023	1029	1033	1048	1079	1123	1129
45	740	737	741	755	761	778	781	778	761	755	741	737	740	737	741	755	761	778	781
50	385	378	371	361	349	321	308	321	349	361	371	378	385	378	371	361	349	321	308
55	145	148	142	135	128	113	104	113	128	135	142	148	145	148	142	135	128	113	104
60	76.1	78.0	72.4	68.1	60.1	52.3	47.7	52.3	60.1	68.1	72.4	78.0	76.1	78.0	72.4	68.1	60.1	52.3	47.7
65	52.7	51.5	47.9	44.0	38.0	32.8	30.4	32.8	38.0	44.0	47.9	51.5	52.7	51.5	47.9	44.0	38.0	32.8	30.4
70	37.1	37.5	35.1	32.0	27.5	23.8	24.1	23.8	27.5	32.0	35.1	37.5	37.1	37.5	35.1	32.0	27.5	23.8	24.1
75	28.4	24.6	23.8	22.7	20.1	17.3	18.0	17.3	20.1	22.7	23.8	24.6	28.4	24.6	23.8	22.7	20.1	17.3	18.0
80	11.7	13.7	15.2	15.4	16.8	15.6	14.6	15.6	16.8	15.4	15.2	13.7	11.7	13.7	15.2	15.4	16.8	15.6	14.6
85	6.75	8.00	10.3	10.2	10.3	9.64	12.2	9.64	10.3	10.2	10.3	8.00	6.75	8.00	10.3	10.2	10.3	9.64	12.2
90	2.04	3.96	8.14	7.70	6.26	6.22	8.36	6.22	6.26	7.70	8.14	3.96	2.04	3.96	8.14	7.70	6.26	6.22	8.36
95	1.64	2.12	3.80	4.18	4.35	4.67	7.29	4.67	4.35	4.18	3.80	2.12	1.64	2.12	3.80	4.18	4.35	4.67	7.29
100	1.54	1.35	1.99	3.42	3.97	5.71	6.63	5.71	3.97	3.42	1.99	1.35	1.54	1.35	1.99	3.42	3.97	5.71	6.63
105	1.95	1.16	1.05	1.43	2.18	3.25	4.27	3.25	2.18	1.43	1.05	1.16	1.35	1.16	1.05	1.43	2.18	3.25	4.27
110	1.25	1.15	0.95	0.86	1.24	2.48	3.13	2.48	1.24	0.86	0.95	1.15	1.25	1.15	0.95	0.86	1.24	2.48	3.13
115	1.25	1.15	0.95	0.86	0.85	1.25	1.71	1.25	0.85	0.86	0.95	1.15	1.25	1.15	0.95	0.86	0.85	1.25	1.71
120	2.11	1.15	0.95	0.86	0.85	0.76	0.76	0.85	0.86	0.95	1.15	2.11	1.15	0.95	0.86	0.85	0.76	0.76	0.85
125	3.36	1.25	0.95	0.86	0.85	0.76	0.76	0.85	0.86	0.95	1.25	3.36	1.25	0.95	0.86	0.85	0.76	0.76	0.85
130	4.32	1.54	1.04	0.95	0.95	0.95	0.85	0.95	0.95	1.04	1.54	4.32	1.54	1.04	0.95	0.95	0.95	0.85	0.95
135	5.09	2.11	1.52	1.33	1.14	1.14	1.14	1.14	1.33	1.52	2.11	5.09	2.11	1.52	1.33	1.14	1.14	1.14	1.33
140	5.86	2.78	2.08	1.81	1.70	1.62	1.52	1.62	1.70	1.81	2.08	5.86	2.78	2.08	1.81	1.70	1.62	1.52	1.62
145	6.44	3.36	2.56	2.47	2.36	2.19	2.18	2.19	2.36	2.47	2.56	3.36	6.44	3.36	2.56	2.47	2.36	2.19	2.18
150	6.44	3.75	2.75	2.57	2.55	2.47	2.18	2.47	2.55	2.57	2.75	3.75	6.44	3.75	2.75	2.57	2.55	2.47	2.18
155	6.44	3.65	2.75	2.76	2.65	2.48	2.27	2.48	2.65	2.76	2.75	3.65	6.44	3.65	2.75	2.76	2.65	2.48	2.27
160	6.44	3.56	2.75	2.76	2.65	2.48	2.27	2.48	2.65	2.76	2.75	3.56	6.44	3.56	2.75	2.76	2.65	2.48	2.27
165	8.16	4.80	3.60	3.14	2.84	2.76	2.74	2.76	2.84	3.14	3.60	4.80	8.16	4.80	3.60	3.14	2.84	2.76	2.74
170	9.22	6.15	4.55	3.90	3.40	3.43	3.22	3.43	3.40	3.90	4.55	6.15	9.22	6.15	4.55	3.90	3.40	3.43	3.22
175	9.51	6.73	4.84	4.09	3.97	3.62	3.59	3.62	3.97	4.09	4.84	6.73	9.51	6.73	4.84	4.09	3.97	3.62	3.59
180	9.51	6.82	4.84	4.09	3.88	3.81	3.50	3.81	3.88	4.09	4.84	6.82	9.51	6.82	4.84	4.09	3.88	3.81	3.50

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1044	1038	1041	1041	1040														
5	1043	1037	1042	1041	1039														
10	1057	1046	1052	1046	1050														
15	1083	1073	1081	1066	1061														
20	1124	1110	1108	1096	1100														
25	1168	1155	1152	1141	1146														
30	1209	1197	1190	1178	1187														
35	1221	1193	1186	1167	1169														
40	1123	1079	1048	1033	1029														
45	778	761	755	741	737														
50	321	349	361	371	378														
55	113	128	135	142	148														
60	52.3	60.1	68.1	72.4	78.0														
65	32.8	38.0	44.0	47.9	51.5														
70	23.8	27.5	32.0	35.1	37.5														
75	17.3	20.1	22.7	23.8	24.6														
80	15.6	16.8	15.4	15.2	13.7														
85	9.64	10.3	10.2	10.3	8.00														
90	6.22	6.26	7.70	8.14	3.96														
95	4.67	4.35	4.18	3.80	2.12														
100	5.71	3.97	3.42	1.99	1.35														
105	3.25	2.18	1.43	1.05	1.16														
110	2.48	1.24	0.86	0.95	1.15														
115	1.25	0.85	0.86	0.95	1.15														
120	0.76	0.85	0.86	0.95	1.15														
125	0.76	0.85	0.86	0.95	1.25														
130	0.95	0.95	0.95	1.04	1.54														
135	1.14	1.14	1.33	1.52	2.11														
140	1.62	1.70	1.81	2.08	2.78														
145	2.19	2.36	2.47	2.56	3.36														
150	2.47	2.55	2.57	2.75	3.75														
155	2.48	2.65	2.76	2.75	3.65														
160	2.48	2.65	2.76	2.75	3.56														
165	2.76	2.84	3.14	3.60	4.80														
170	3.43	3.40	3.90	4.55	6.15														
175	3.62	3.97	4.09	4.84	6.73														
180	3.81	3.88	4.09	4.84	6.82														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM2B @15W5000K	Sample ID	250903025-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±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

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.135	15.9	0.985	10.45

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	2025-08-04	2026-08-03
NTC-F01-019	Temperature & Humidity Meter	2024-10-29	2025-10-28

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