

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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Date: 2025-10-22

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Issue Date: 2025-10-22

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		7137
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	148.4
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		48.1
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.57
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.991
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4981
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.2
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		80
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		89
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		0.404
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		48.1
(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	2025-10-21	TKBEAM4B @50W5000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @50W5000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @50W5000K	-	251017004-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. TKBEAM4B @50W5000K, 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.	TKBEAM4B @50W5000K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

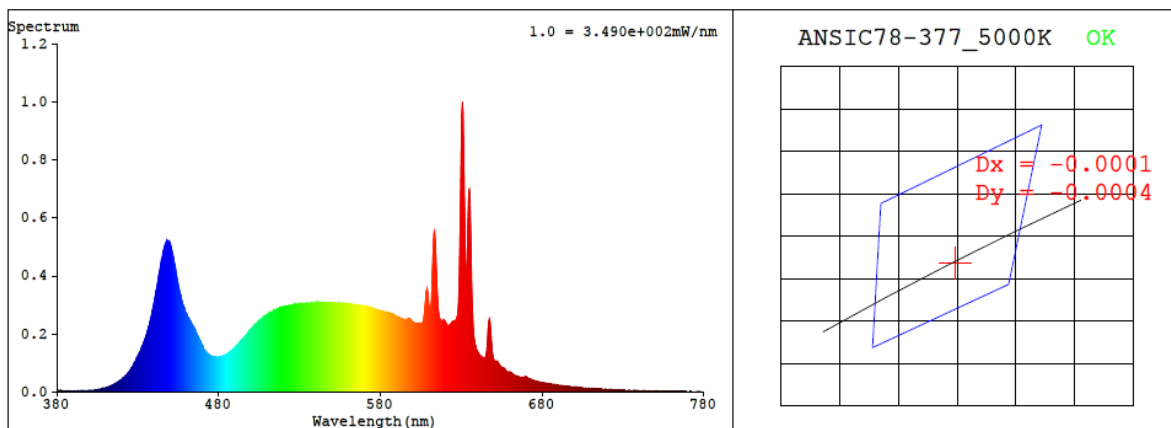
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.404	48.1	0.991

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4981	92.2	80	-0.0002	2.3	89	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3456$ $y = 0.3517$ / $u' = 0.2117$ $v' = 0.4848$ ($duv = -1.55e-04$)

CCT= 4981K Prp WL: Ld=573.2nm Purity=9.2%

Peak WL: Lp=631nm FWHM: =3.6nm Ratio:R=17.9% G=77.6% B=4.4%

Render Index: Ra = 92.2 AvgR = 89.4 TM30:Rf=89 Rg=103

EEI: 0.09225 A++ Highest

R1 =95 R2 =92 R3 =87 R4 =93 R5 =94 R6 =89 R7 =94

R8 =94 R9 =80 R10=80 R11=92 R12=70 R13=94 R14=92 R15=95

4.1 Integrating Sphere Test

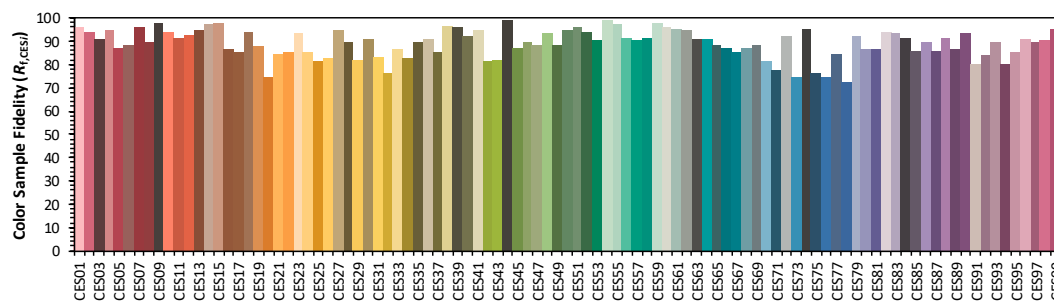
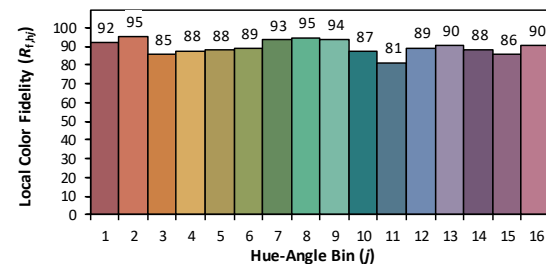
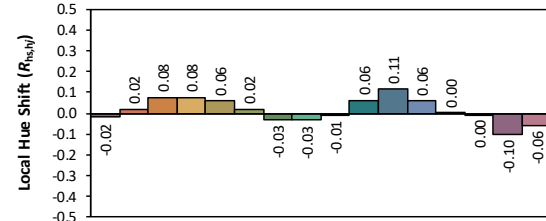
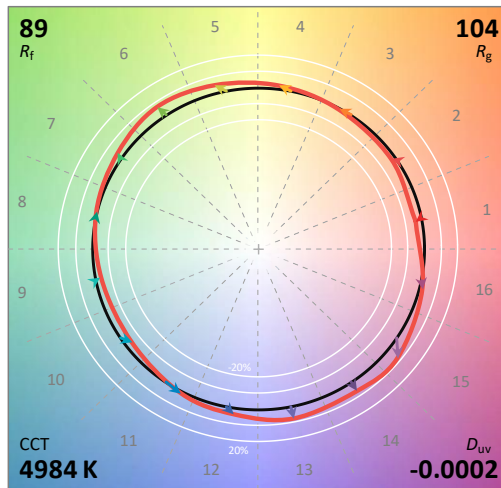
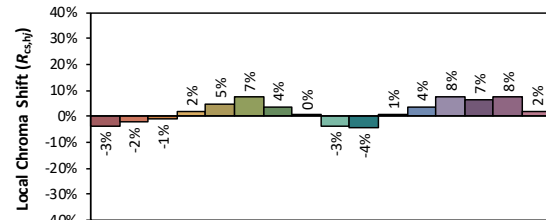
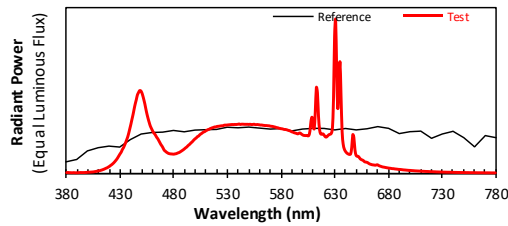
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @50W5000K



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

x 0.3455
 y 0.3515
 u' 0.2117
 v' 0.4847

CIE 13.3-1995
(CRI)

R_a 92
 R_g 81

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	3.00E-06	447	5.05E-04	514	2.80E-04	581	2.79E-04	648	2.24E-04	715	1.07E-05
381	4.00E-06	448	5.18E-04	515	2.83E-04	582	2.77E-04	649	1.47E-04	716	1.05E-05
382	3.60E-06	449	5.18E-04	516	2.86E-04	583	2.75E-04	650	1.13E-04	717	1.03E-05
383	2.90E-06	450	5.08E-04	517	2.87E-04	584	2.74E-04	651	1.06E-04	718	9.90E-06
384	2.90E-06	451	4.88E-04	518	2.90E-04	585	2.73E-04	652	1.06E-04	719	9.40E-06
385	2.20E-06	452	4.63E-04	519	2.90E-04	586	2.71E-04	653	9.83E-05	720	9.30E-06
386	2.90E-06	453	4.34E-04	520	2.93E-04	587	2.68E-04	654	8.97E-05	721	9.30E-06
387	3.10E-06	454	4.01E-04	521	2.94E-04	588	2.67E-04	655	8.49E-05	722	8.80E-06
388	2.20E-06	455	3.70E-04	522	2.95E-04	589	2.64E-04	656	8.22E-05	723	8.60E-06
389	2.50E-06	456	3.43E-04	523	2.96E-04	590	2.60E-04	657	7.80E-05	724	8.30E-06
390	2.30E-06	457	3.19E-04	524	2.97E-04	591	2.58E-04	658	7.16E-05	725	7.90E-06
391	2.80E-06	458	2.98E-04	525	2.98E-04	592	2.55E-04	659	6.97E-05	726	7.70E-06
392	3.50E-06	459	2.83E-04	526	2.98E-04	593	2.53E-04	660	6.83E-05	727	7.50E-06
393	3.80E-06	460	2.69E-04	527	3.01E-04	594	2.51E-04	661	6.54E-05	728	7.20E-06
394	3.60E-06	461	2.56E-04	528	3.02E-04	595	2.48E-04	662	6.05E-05	729	7.20E-06
395	3.50E-06	462	2.48E-04	529	3.02E-04	596	2.47E-04	663	5.71E-05	730	7.00E-06
396	3.60E-06	463	2.38E-04	530	3.03E-04	597	2.52E-04	664	5.49E-05	731	6.40E-06
397	3.90E-06	464	2.26E-04	531	3.04E-04	598	2.51E-04	665	5.28E-05	732	6.30E-06
398	4.40E-06	465	2.17E-04	532	3.04E-04	599	2.46E-04	666	5.18E-05	733	6.20E-06
399	4.80E-06	466	2.04E-04	533	3.05E-04	600	2.41E-04	667	5.09E-05	734	6.00E-06
400	5.80E-06	467	1.92E-04	534	3.06E-04	601	2.38E-04	668	4.98E-05	735	5.80E-06
401	5.70E-06	468	1.79E-04	535	3.06E-04	602	2.37E-04	669	5.14E-05	736	5.70E-06
402	6.30E-06	469	1.70E-04	536	3.05E-04	603	2.36E-04	670	5.26E-05	737	5.70E-06
403	6.80E-06	470	1.58E-04	537	3.06E-04	604	2.37E-04	671	4.85E-05	738	5.50E-06
404	7.30E-06	471	1.45E-04	538	3.06E-04	605	2.35E-04	672	4.53E-05	739	5.40E-06
405	7.90E-06	472	1.39E-04	539	3.07E-04	606	2.37E-04	673	4.31E-05	740	5.00E-06
406	9.20E-06	473	1.33E-04	540	3.07E-04	607	2.64E-04	674	4.06E-05	741	4.90E-06
407	1.02E-05	474	1.28E-04	541	3.09E-04	608	3.26E-04	675	3.88E-05	742	4.70E-06
408	1.17E-05	475	1.24E-04	542	3.06E-04	609	3.51E-04	676	3.76E-05	743	4.60E-06
409	1.30E-05	476	1.22E-04	543	3.08E-04	610	2.95E-04	677	3.63E-05	744	4.50E-06
410	1.40E-05	477	1.21E-04	544	3.08E-04	611	2.79E-04	678	3.49E-05	745	4.30E-06
411	1.60E-05	478	1.21E-04	545	3.08E-04	612	3.85E-04	679	3.36E-05	746	4.30E-06
412	1.80E-05	479	1.20E-04	546	3.07E-04	613	5.38E-04	680	3.24E-05	747	4.10E-06
413	2.01E-05	480	1.19E-04	547	3.07E-04	614	5.05E-04	681	3.13E-05	748	3.80E-06
414	2.26E-05	481	1.21E-04	548	3.07E-04	615	3.58E-04	682	3.05E-05	749	3.80E-06
415	2.53E-05	482	1.22E-04	549	3.07E-04	616	2.73E-04	683	2.93E-05	750	3.70E-06
416	2.84E-05	483	1.25E-04	550	3.06E-04	617	2.47E-04	684	2.82E-05	751	3.50E-06
417	3.16E-05	484	1.28E-04	551	3.07E-04	618	2.45E-04	685	2.80E-05	752	3.60E-06
418	3.45E-05	485	1.30E-04	552	3.06E-04	619	2.47E-04	686	2.67E-05	753	3.30E-06
419	3.88E-05	486	1.34E-04	553	3.06E-04	620	2.41E-04	687	2.59E-05	754	3.40E-06
420	4.30E-05	487	1.38E-04	554	3.07E-04	621	2.31E-04	688	2.52E-05	755	3.30E-06
421	4.83E-05	488	1.43E-04	555	3.07E-04	622	2.26E-04	689	2.43E-05	756	3.00E-06
422	5.31E-05	489	1.48E-04	556	3.05E-04	623	2.30E-04	690	2.34E-05	757	3.10E-06
423	5.88E-05	490	1.53E-04	557	3.05E-04	624	2.37E-04	691	2.32E-05	758	2.90E-06
424	6.52E-05	491	1.59E-04	558	3.06E-04	625	2.43E-04	692	2.25E-05	759	2.90E-06
425	7.28E-05	492	1.64E-04	559	3.05E-04	626	2.45E-04	693	2.17E-05	760	2.90E-06
426	8.09E-05	493	1.71E-04	560	3.04E-04	627	2.51E-04	694	2.07E-05	761	2.80E-06
427	8.98E-05	494	1.77E-04	561	3.02E-04	628	2.83E-04	695	2.01E-05	762	2.70E-06
428	1.01E-04	495	1.83E-04	562	3.03E-04	629	4.67E-04	696	1.95E-05	763	2.60E-06
429	1.12E-04	496	1.90E-04	563	3.01E-04	630	8.59E-04	697	1.88E-05	764	2.40E-06
430	1.23E-04	497	1.96E-04	564	3.00E-04	631	9.66E-04	698	1.82E-05	765	2.40E-06
431	1.33E-04	498	2.03E-04	565	2.99E-04	632	6.35E-04	699	1.76E-05	766	2.40E-06
432	1.49E-04	499	2.11E-04	566	2.99E-04	633	4.05E-04	700	1.72E-05	767	2.40E-06
433	1.60E-04	500	2.17E-04	567	2.99E-04	634	5.50E-04	701	1.69E-05	768	2.30E-06
434	1.75E-04	501	2.22E-04	568	2.98E-04	635	7.01E-04	702	1.62E-05	769	2.30E-06
435	1.91E-04	502	2.29E-04	569	2.98E-04	636	4.91E-04	703	1.57E-05	770	2.10E-06
436	2.09E-04	503	2.33E-04	570	2.96E-04	637	2.65E-04	704	1.52E-05	771	1.90E-06
437	2.28E-04	504	2.40E-04	571	2.95E-04	638	1.84E-04	705	1.45E-05	772	2.10E-06
438	2.53E-04	505	2.46E-04	572	2.94E-04	639	1.53E-04	706	1.41E-05	773	2.10E-06
439	2.81E-04	506	2.50E-04	573	2.92E-04	640	1.39E-04	707	1.38E-05	774	1.90E-06
440	3.09E-04	507	2.55E-04	574	2.90E-04	641	1.30E-04	708	1.34E-05	775	1.90E-06
441	3.40E-04	508	2.59E-04	575	2.89E-04	642	1.23E-04	709	1.30E-05	776	1.70E-06
442	3.69E-04	509	2.62E-04	576	2.86E-04	643	1.20E-04	710	1.27E-05	777	1.60E-06
443	4.04E-04	510	2.67E-04	577	2.85E-04	644	1.18E-04	711	1.22E-05	778	1.70E-06
444	4.35E-04	511	2.70E-04	578	2.82E-04	645	1.20E-04	712	1.16E-05	779	1.60E-06
445	4.62E-04	512	2.74E-04	579	2.81E-04	646	1.61E-04	713	1.15E-05	780	1.60E-06
446	4.91E-04	513	2.76E-04	580	2.79E-04	647	2.41E-04	714	1.10E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @50W5000K	Sample ID	251017004-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	0.404	48.1	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

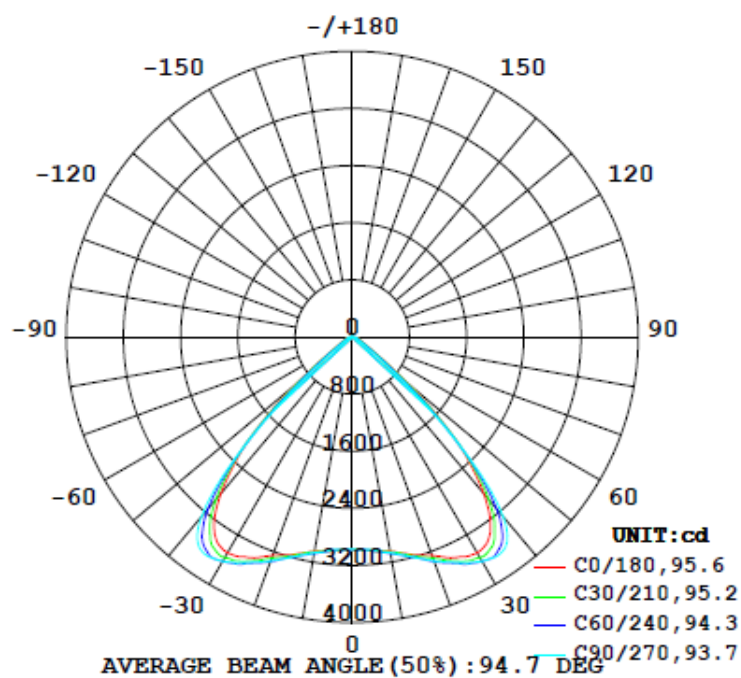
Test Result

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°)
7137	93.8	108.1	67.8	90.6	148.4	99.4%

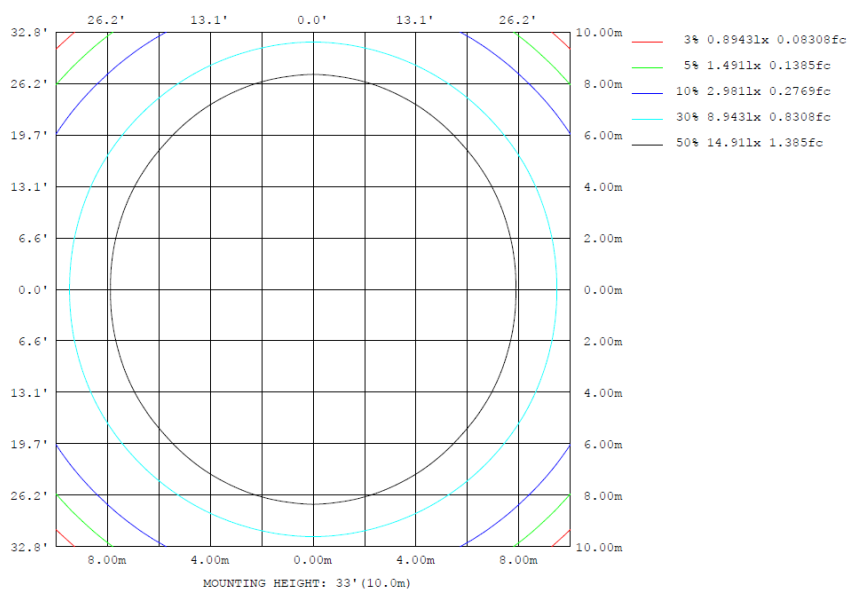
4.2 Goniophotometer Test

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	Φ zone	Φ total	lum, lamp
10	3047	3068	3070	3068	3047	3068	3070	3068	0- 10	288.4	288.4	4.04,4.04
20	3254	3313	3336	3313	3254	3313	3336	3313	10- 20	904.1	1192	16.7,16.7
30	3488	3598	3623	3598	3488	3598	3623	3598	20- 30	1606	2799	39.2,39.2
40	2866	3037	3286	3037	2866	3037	3286	3037	30- 40	2165	4964	69.5,69.5
50	1036	908.5	726.9	908.5	1036	908.5	726.9	908.5	40- 50	1547	6511	91.2,91.2
60	213.4	184.0	125.0	184.0	213.4	184.0	125.0	184.0	50- 60	360.6	6871	96.3,96.3
70	106.2	90.22	71.67	90.22	106.2	90.22	71.67	90.22	60- 70	123.5	6995	98,98
80	36.31	52.57	45.10	52.57	36.31	52.57	45.10	52.57	70- 80	68.45	7063	99,99
90	3.496	24.14	30.41	24.14	3.496	24.14	30.41	24.14	80- 90	34.36	7098	99.4,99.4
100	3.064	9.174	21.64	9.174	3.064	9.174	21.64	9.174	90-100	13.64	7111	99.6,99.6
110	5.102	1.782	8.373	1.782	5.102	1.782	8.373	1.782	100-110	5.762	7117	99.7,99.7
120	11.04	1.590	1.236	1.590	11.04	1.590	1.236	1.590	110-120	2.817	7120	99.8,99.8
130	11.79	2.333	1.612	2.333	11.79	2.333	1.612	2.333	120-130	2.766	7123	99.8,99.8
140	11.97	4.391	3.413	4.391	11.97	4.391	3.413	4.391	130-140	3.633	7126	99.8,99.8
150	13.83	5.705	4.459	5.705	13.83	5.705	4.459	5.705	140-150	4.193	7131	99.9,99.9
160	11.89	5.705	4.554	5.705	11.89	5.705	4.554	5.705	150-160	3.306	7134	99.9,99.9
170	23.57	8.598	7.116	8.598	23.57	8.598	7.116	8.598	160-170	2.528	7136	100,100
180	24.42	9.166	7.784	9.166	24.42	9.166	7.784	9.166	170-180	1.114	7137	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	288.35	0-10	288.35	4.04%
10-20	904.13	0-20	1192.48	16.71%
20-30	1606.28	0-30	2798.76	39.22%
30-40	2164.99	0-40	4963.75	69.56%
40-50	1547.00	0-50	6510.75	91.23%
50-60	360.64	0-60	6871.39	96.29%
60-70	123.51	0-70	6994.90	98.02%
70-80	68.45	0-80	7063.35	98.98%
80-90	34.36	0-90	7097.71	99.46%
90-100	13.64	0-100	7111.35	99.65%
100-110	5.76	0-110	7117.11	99.73%
110-120	2.82	0-120	7119.93	99.77%
120-130	2.77	0-130	7122.70	99.81%
130-140	3.63	0-140	7126.33	99.86%
140-150	4.19	0-150	7130.52	99.92%
150-160	3.31	0-160	7133.83	99.96%
160-170	2.53	0-170	7136.36	100.00%
170-180	1.12	0-180	7137.48	100.02%

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	2974	2973	2976	2977	2980	2972	2973	2972	2980	2977	2976	2973	2974	2973	2976	2977	2980	2972	2973
5	3004	2997	3001	2998	2999	2996	2993	2996	2999	2998	3001	2997	3004	2997	3001	2998	2999	2996	2993
10	3047	3050	3060	3068	3076	3074	3070	3074	3076	3068	3060	3050	3047	3050	3060	3068	3076	3074	3070
15	3154	3136	3170	3177	3191	3189	3185	3189	3191	3177	3170	3136	3154	3136	3170	3177	3191	3189	3185
20	3254	3274	3295	3313	3346	3345	3336	3345	3346	3313	3295	3274	3254	3274	3295	3313	3346	3345	3336
25	3409	3418	3459	3472	3496	3505	3489	3505	3496	3472	3459	3418	3409	3418	3459	3472	3496	3505	3489
30	3488	3520	3568	3598	3629	3639	3623	3639	3629	3598	3568	3520	3488	3520	3568	3598	3629	3639	3623
35	3360	3396	3464	3520	3603	3658	3666	3658	3603	3520	3464	3396	3360	3396	3464	3520	3603	3658	3666
40	2866	2898	2974	3037	3145	3237	3286	3237	3145	3037	2974	2898	2866	2898	2974	3037	3145	3237	3286
45	2066	2073	2090	2062	2056	2044	2054	2044	2056	2062	2090	2073	2066	2073	2090	2062	2056	2044	2054
50	1036	1021	974	909	873	770	727	770	873	909	974	1021	1036	1021	974	909	873	770	727
55	404	406	380	349	322	273	245	273	322	349	380	406	404	406	380	349	322	273	245
60	213	217	199	184	165	140	125	140	165	184	199	217	213	217	199	184	165	140	125
65	147	145	135	125	109	93.2	85.6	93.2	109	125	135	145	147	145	135	125	109	93.2	85.6
70	106	104	99.2	90.2	80.1	69.4	61.7	69.4	80.1	90.2	99.2	104	106	104	99.2	90.2	80.1	69.4	61.7
75	82.2	66.9	67.6	64.7	59.5	51.3	53.6	51.3	59.5	64.7	67.6	66.9	82.2	66.9	67.6	64.7	59.5	51.3	53.6
80	36.3	38.1	49.1	52.6	56.3	49.6	45.1	49.6	56.3	52.6	49.1	38.1	36.3	38.1	49.1	52.6	56.3	49.6	45.1
85	18.2	22.5	31.8	32.0	32.6	29.7	48.2	29.7	32.6	32.0	31.8	22.5	18.2	22.5	31.8	32.0	32.6	29.7	48.2
90	3.50	10.6	25.5	24.1	19.6	19.2	30.4	19.2	19.6	24.1	25.5	10.6	3.50	10.6	25.5	24.1	19.6	19.2	30.4
95	3.16	4.20	10.4	12.2	13.4	14.7	24.1	14.7	13.4	12.2	10.4	4.20	3.16	4.20	10.4	12.2	13.4	14.7	24.1
100	3.06	2.33	4.22	9.17	13.3	16.8	21.6	16.8	13.3	9.17	4.22	2.33	3.06	2.33	4.22	9.17	13.3	16.8	21.6
105	3.06	2.33	2.15	2.82	4.92	8.52	12.4	8.52	4.92	2.82	2.15	2.33	3.06	2.33	2.15	2.82	4.92	8.52	12.4
110	5.10	2.33	2.06	1.78	2.56	5.50	8.37	5.50	2.56	1.78	2.06	2.33	5.10	2.33	2.06	1.78	2.56	5.50	8.37
115	8.45	2.61	2.06	1.59	1.32	2.47	3.91	2.47	1.32	1.59	2.06	2.61	8.45	2.61	2.06	1.59	1.32	2.47	3.91
120	11.0	3.91	2.06	1.59	1.32	1.14	1.24	1.14	1.32	1.59	2.06	3.91	11.0	3.91	2.06	1.59	1.32	1.14	1.24
125	12.2	5.49	2.15	1.59	1.32	1.14	1.23	1.14	1.32	1.59	2.15	5.49	12.2	5.49	2.15	1.59	1.32	1.14	1.23
130	11.8	6.79	2.99	2.33	1.98	1.79	1.61	1.79	1.98	2.33	2.99	6.79	11.8	6.79	2.99	2.33	1.98	1.79	1.61
135	11.8	8.01	4.01	3.27	3.02	2.83	2.56	2.83	3.02	3.27	4.01	8.01	11.8	8.01	4.01	3.27	3.02	2.83	2.56
140	12.0	9.23	5.23	4.39	4.14	4.06	3.41	4.06	4.14	4.39	5.23	9.23	12.0	9.23	5.23	4.39	4.14	4.06	3.41
145	12.9	10.6	6.26	5.33	5.00	5.01	4.17	5.01	5.00	5.33	6.26	10.6	12.9	10.6	6.26	5.33	5.00	5.01	4.17
150	13.8	11.0	6.46	5.71	5.57	5.49	4.46	5.49	5.57	5.71	6.46	11.0	13.8	11.0	6.46	5.71	5.57	5.49	4.46
155	12.8	11.0	6.46	5.71	5.66	5.67	4.46	5.67	5.66	5.71	6.46	11.0	12.8	11.0	6.46	5.71	5.66	5.67	4.46
160	11.9	10.3	6.46	5.71	5.85	5.58	4.55	5.58	5.85	5.71	6.46	10.3	11.9	10.3	6.46	5.71	5.85	5.58	4.55
165	18.1	14.7	8.41	7.29	7.25	6.81	5.79	6.81	7.25	7.29	8.41	14.7	18.1	14.7	8.41	7.29	7.25	6.81	5.79
170	23.6	17.4	10.1	8.60	8.01	7.76	7.12	7.76	8.01	8.60	10.1	17.4	23.6	17.4	10.1	8.60	8.01	7.76	7.12
175	24.4	18.1	10.8	9.25	8.68	8.42	7.68	8.42	8.68	9.25	10.8	18.1	24.4	18.1	10.8	9.25	8.68	8.42	7.68
180	24.4	18.2	10.8	9.17	8.68	8.61	7.78	8.61	8.68	9.17	10.8	18.2	24.4	18.2	10.8	9.17	8.68	8.61	7.78

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	2972	2980	2977	2976	2973														
5	2996	2999	2998	3001	2997														
10	3074	3076	3068	3060	3050														
15	3189	3191	3177	3170	3136														
20	3345	3346	3313	3295	3274														
25	3505	3496	3472	3459	3418														
30	3639	3629	3598	3568	3520														
35	3658	3603	3520	3464	3396														
40	3237	3145	3037	2974	2898														
45	2044	2056	2062	2090	2073														
50	770	873	909	974	1021														
55	273	322	349	380	406														
60	140	165	184	199	217														
65	93.2	109	125	135	145														
70	69.4	80.1	90.2	99.2	104														
75	51.3	59.5	64.7	67.6	66.9														
80	49.6	56.3	52.6	49.1	38.1														
85	29.7	32.6	32.0	31.8	22.5														
90	19.2	19.6	24.1	25.5	10.6														
95	14.7	13.4	12.2	10.4	4.20														
100	16.8	13.3	9.17	4.22	2.33														
105	8.52	4.92	2.82	2.15	2.33														
110	5.50	2.56	1.78	2.06	2.33														
115	2.47	1.32	1.59	2.06	2.61														
120	1.14	1.32	1.59	2.06	3.91														
125	1.14	1.32	1.59	2.15	5.49														
130	1.79	1.98	2.33	2.99	6.79														
135	2.83	3.02	3.27	4.01	8.01														
140	4.06	4.14	4.39	5.23	9.23														
145	5.01	5.00	5.33	6.26	10.6														
150	5.49	5.57	5.71	6.46	11.0														
155	5.67	5.66	5.71	6.46	11.0														
160	5.58	5.85	5.71	6.46	10.3														
165	6.81	7.25	7.29	8.41	14.7														
170	7.76	8.01	8.60	10.1	17.4														
175	8.42	8.68	9.25	10.8	18.1														
180	8.61	8.68	9.17	10.8	18.2														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @50W5000K	Sample ID	251017004-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	0.404	48.1	0.991	9.57

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*****