

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: 2025-10-22

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		6957
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	145.5
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		47.8
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.61
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	3045±175	3110
			4 steps	3045±100	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.0
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		66
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		103
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-4%
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		0.402
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		47.8
(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 @50W3000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @50W3000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @50W3000K	-	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 @50W3000K, 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 @50W3000K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

Test Method

The Samples were tested according to the ANSI/IES LM-79:2019.

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25 \pm 1^\circ\text{C}$.

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 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.

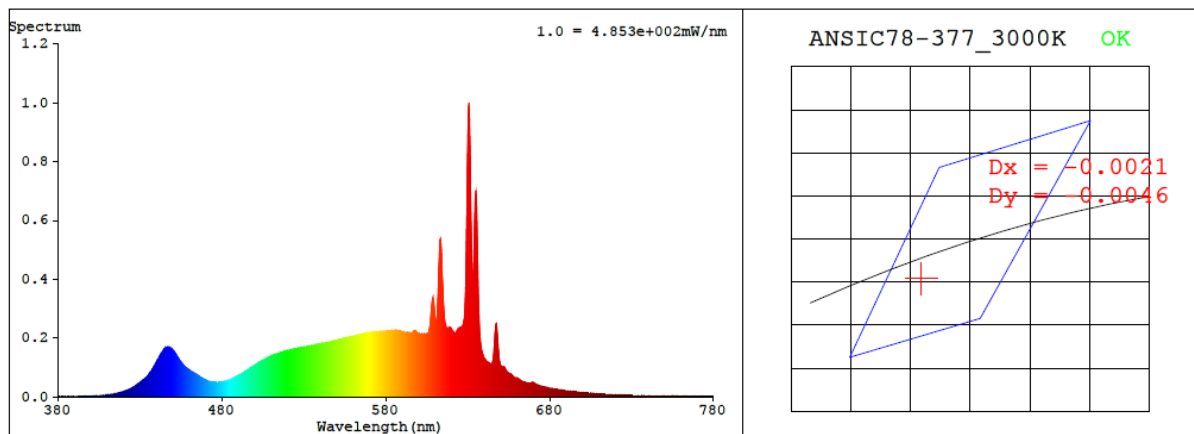
The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780nm.

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.402	47.8	0.991

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3110	93.0	66	-0.0016	3.5	89	103	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4272$ $y = 0.3967$ / $u' = 0.2475$ $v' = 0.5170$ ($duv = -1.58e-03$)

CCT= 3110K Prcp WL: Ld=583.0nm Purity=47.3%

Peak WL: Lp=631nm FWHM: =3.6nm Ratio:R=24.3% G=73.0% B=2.6%

Render Index: Ra = 93.0 AvgR = 90.2 TM30:Rf=89 Rg=103

EEL: 0.09366 A++ Highest

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

R8 =87 R9 =66 R10=85 R11=94 R12=83 R13=95 R14=94 R15=92

4.1 Integrating Sphere Test

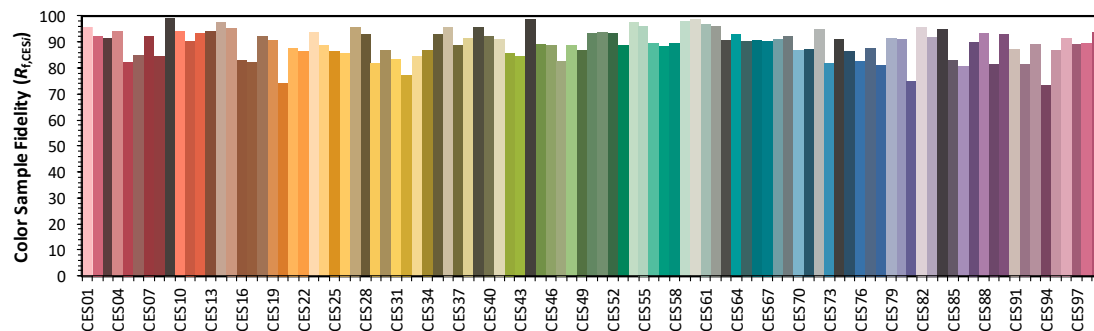
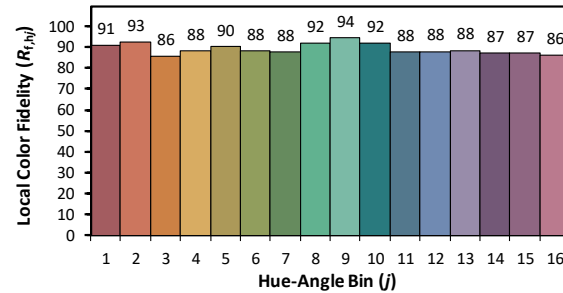
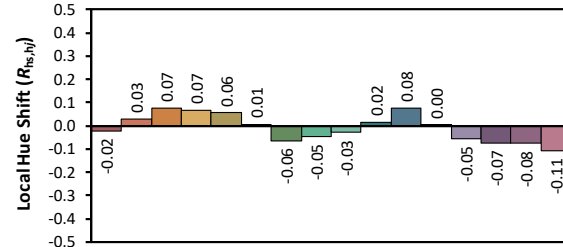
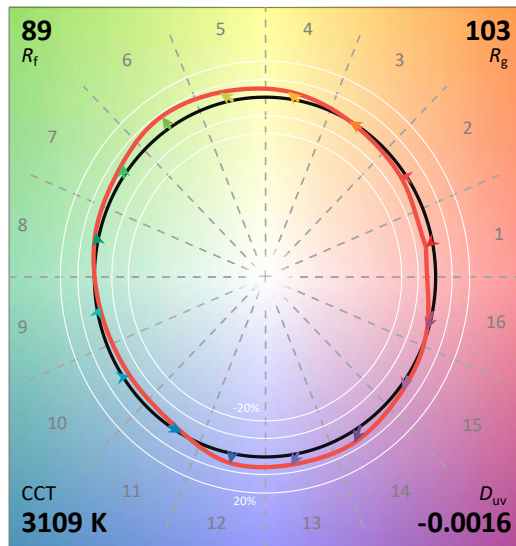
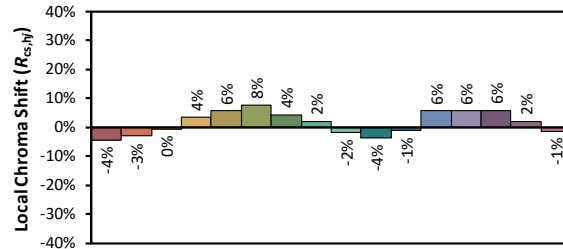
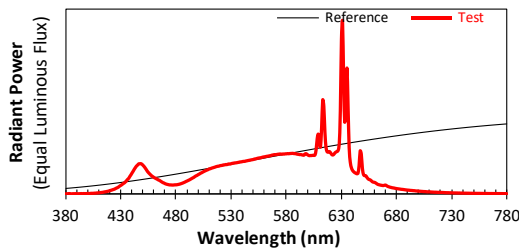
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @50W3000K



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

x 0.4272
 y 0.3966
 u' 0.2475
 v' 0.5169

CIE 13.3-1995
(CRI)

R_a 93
 R_9 67

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	1.00E-06	447	1.68E-04	514	1.47E-04	581	2.25E-04	648	2.22E-04	715	9.30E-06
381	4.00E-07	448	1.69E-04	515	1.49E-04	582	2.24E-04	649	1.43E-04	716	9.20E-06
382	1.20E-06	449	1.65E-04	516	1.51E-04	583	2.25E-04	650	1.08E-04	717	8.70E-06
383	1.50E-06	450	1.59E-04	517	1.53E-04	584	2.25E-04	651	1.02E-04	718	8.50E-06
384	1.10E-06	451	1.52E-04	518	1.54E-04	585	2.26E-04	652	1.02E-04	719	8.20E-06
385	0.00E+00	452	1.44E-04	519	1.55E-04	586	2.26E-04	653	9.33E-05	720	8.10E-06
386	8.00E-07	453	1.35E-04	520	1.58E-04	587	2.25E-04	654	8.49E-05	721	7.90E-06
387	9.00E-07	454	1.25E-04	521	1.58E-04	588	2.25E-04	655	8.05E-05	722	7.70E-06
388	1.00E-06	455	1.18E-04	522	1.60E-04	589	2.23E-04	656	7.83E-05	723	7.30E-06
389	1.20E-06	456	1.11E-04	523	1.62E-04	590	2.21E-04	657	7.37E-05	724	7.00E-06
390	7.00E-07	457	1.05E-04	524	1.62E-04	591	2.21E-04	658	6.80E-05	725	6.70E-06
391	7.00E-07	458	9.96E-05	525	1.64E-04	592	2.19E-04	659	6.53E-05	726	6.50E-06
392	9.00E-07	459	9.55E-05	526	1.63E-04	593	2.20E-04	660	6.43E-05	727	6.50E-06
393	1.30E-06	460	9.10E-05	527	1.66E-04	594	2.18E-04	661	6.11E-05	728	6.10E-06
394	1.60E-06	461	8.78E-05	528	1.67E-04	595	2.17E-04	662	5.69E-05	729	6.10E-06
395	1.00E-06	462	8.45E-05	529	1.67E-04	596	2.16E-04	663	5.30E-05	730	5.80E-06
396	1.70E-06	463	8.11E-05	530	1.69E-04	597	2.23E-04	664	5.12E-05	731	5.50E-06
397	1.40E-06	464	7.74E-05	531	1.70E-04	598	2.24E-04	665	4.95E-05	732	5.30E-06
398	1.50E-06	465	7.48E-05	532	1.71E-04	599	2.19E-04	666	4.82E-05	733	5.30E-06
399	1.70E-06	466	7.05E-05	533	1.73E-04	600	2.15E-04	667	4.71E-05	734	5.10E-06
400	2.60E-06	467	6.66E-05	534	1.73E-04	601	2.13E-04	668	4.65E-05	735	5.10E-06
401	1.80E-06	468	6.27E-05	535	1.74E-04	602	2.14E-04	669	4.80E-05	736	4.70E-06
402	2.50E-06	469	6.04E-05	536	1.75E-04	603	2.14E-04	670	4.91E-05	737	4.90E-06
403	3.10E-06	470	5.69E-05	537	1.77E-04	604	2.15E-04	671	4.56E-05	738	4.50E-06
404	3.10E-06	471	5.47E-05	538	1.78E-04	605	2.15E-04	672	4.18E-05	739	4.40E-06
405	3.40E-06	472	5.29E-05	539	1.79E-04	606	2.17E-04	673	3.97E-05	740	4.20E-06
406	4.00E-06	473	5.16E-05	540	1.80E-04	607	2.46E-04	674	3.75E-05	741	4.10E-06
407	4.20E-06	474	5.01E-05	541	1.81E-04	608	3.09E-04	675	3.60E-05	742	3.80E-06
408	5.10E-06	475	5.01E-05	542	1.81E-04	609	3.33E-04	676	3.43E-05	743	3.90E-06
409	5.50E-06	476	4.95E-05	543	1.83E-04	610	2.77E-04	677	3.33E-05	744	3.70E-06
410	6.20E-06	477	4.93E-05	544	1.84E-04	611	2.63E-04	678	3.22E-05	745	3.70E-06
411	6.90E-06	478	4.98E-05	545	1.86E-04	612	3.68E-04	679	3.07E-05	746	3.50E-06
412	7.70E-06	479	5.05E-05	546	1.87E-04	613	5.23E-04	680	2.96E-05	747	3.50E-06
413	8.40E-06	480	5.06E-05	547	1.88E-04	614	4.89E-04	681	2.86E-05	748	3.30E-06
414	9.50E-06	481	5.14E-05	548	1.90E-04	615	3.44E-04	682	2.77E-05	749	3.10E-06
415	1.10E-05	482	5.28E-05	549	1.91E-04	616	2.59E-04	683	2.69E-05	750	3.20E-06
416	1.19E-05	483	5.42E-05	550	1.92E-04	617	2.35E-04	684	2.58E-05	751	3.10E-06
417	1.33E-05	484	5.61E-05	551	1.94E-04	618	2.33E-04	685	2.52E-05	752	2.80E-06
418	1.46E-05	485	5.82E-05	552	1.95E-04	619	2.36E-04	686	2.45E-05	753	2.90E-06
419	1.63E-05	486	6.06E-05	553	1.97E-04	620	2.30E-04	687	2.36E-05	754	2.70E-06
420	1.86E-05	487	6.33E-05	554	1.99E-04	621	2.21E-04	688	2.26E-05	755	2.80E-06
421	2.02E-05	488	6.60E-05	555	2.00E-04	622	2.17E-04	689	2.19E-05	756	2.70E-06
422	2.22E-05	489	6.94E-05	556	2.01E-04	623	2.20E-04	690	2.11E-05	757	2.50E-06
423	2.44E-05	490	7.20E-05	557	2.02E-04	624	2.28E-04	691	2.07E-05	758	2.50E-06
424	2.64E-05	491	7.53E-05	558	2.04E-04	625	2.33E-04	692	1.99E-05	759	2.30E-06
425	2.97E-05	492	7.80E-05	559	2.06E-04	626	2.36E-04	693	1.92E-05	760	2.30E-06
426	3.28E-05	493	8.17E-05	560	2.07E-04	627	2.42E-04	694	1.89E-05	761	2.20E-06
427	3.56E-05	494	8.52E-05	561	2.08E-04	628	2.77E-04	695	1.80E-05	762	2.20E-06
428	3.97E-05	495	8.88E-05	562	2.09E-04	629	4.62E-04	696	1.78E-05	763	2.00E-06
429	4.46E-05	496	9.20E-05	563	2.10E-04	630	8.61E-04	697	1.69E-05	764	1.90E-06
430	4.82E-05	497	9.66E-05	564	2.11E-04	631	9.65E-04	698	1.62E-05	765	1.90E-06
431	5.26E-05	498	1.00E-04	565	2.13E-04	632	6.30E-04	699	1.58E-05	766	2.00E-06
432	5.75E-05	499	1.03E-04	566	2.14E-04	633	3.99E-04	700	1.52E-05	767	1.90E-06
433	6.13E-05	500	1.08E-04	567	2.16E-04	634	5.50E-04	701	1.49E-05	768	1.80E-06
434	6.71E-05	501	1.11E-04	568	2.17E-04	635	7.02E-04	702	1.42E-05	769	1.70E-06
435	7.39E-05	502	1.15E-04	569	2.19E-04	636	4.86E-04	703	1.38E-05	770	1.70E-06
436	8.11E-05	503	1.18E-04	570	2.19E-04	637	2.59E-04	704	1.33E-05	771	1.80E-06
437	8.72E-05	504	1.21E-04	571	2.19E-04	638	1.77E-04	705	1.28E-05	772	1.50E-06
438	9.75E-05	505	1.24E-04	572	2.21E-04	639	1.47E-04	706	1.27E-05	773	1.60E-06
439	1.07E-04	506	1.27E-04	573	2.21E-04	640	1.32E-04	707	1.21E-05	774	1.60E-06
440	1.17E-04	507	1.30E-04	574	2.22E-04	641	1.24E-04	708	1.15E-05	775	1.50E-06
441	1.27E-04	508	1.33E-04	575	2.22E-04	642	1.19E-04	709	1.13E-05	776	1.50E-06
442	1.37E-04	509	1.36E-04	576	2.21E-04	643	1.15E-04	710	1.13E-05	777	1.30E-06
443	1.47E-04	510	1.39E-04	577	2.23E-04	644	1.12E-04	711	1.07E-05	778	1.40E-06
444	1.55E-04	511	1.40E-04	578	2.22E-04	645	1.15E-04	712	1.02E-05	779	1.40E-06
445	1.61E-04	512	1.43E-04	579	2.23E-04	646	1.57E-04	713	9.90E-06	780	1.40E-06
446	1.67E-04	513	1.45E-04	580	2.23E-04	647	2.39E-04	714	9.40E-06	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @50W3000K	Sample ID	251017004-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	Humidity (%RH)	40.1

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	0.402	47.8	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

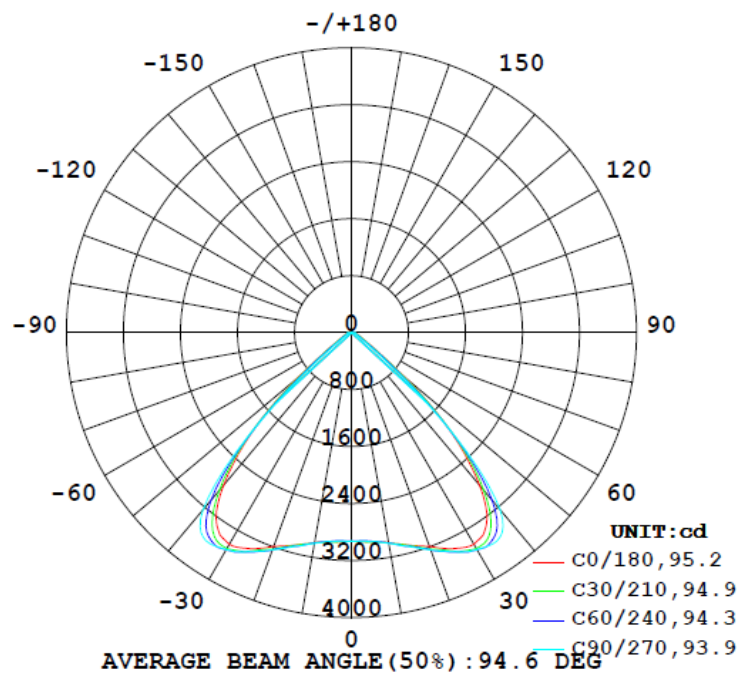
Test Result

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°)
6957	93.5	107.9	67.8	90.3	145.5	99.4%

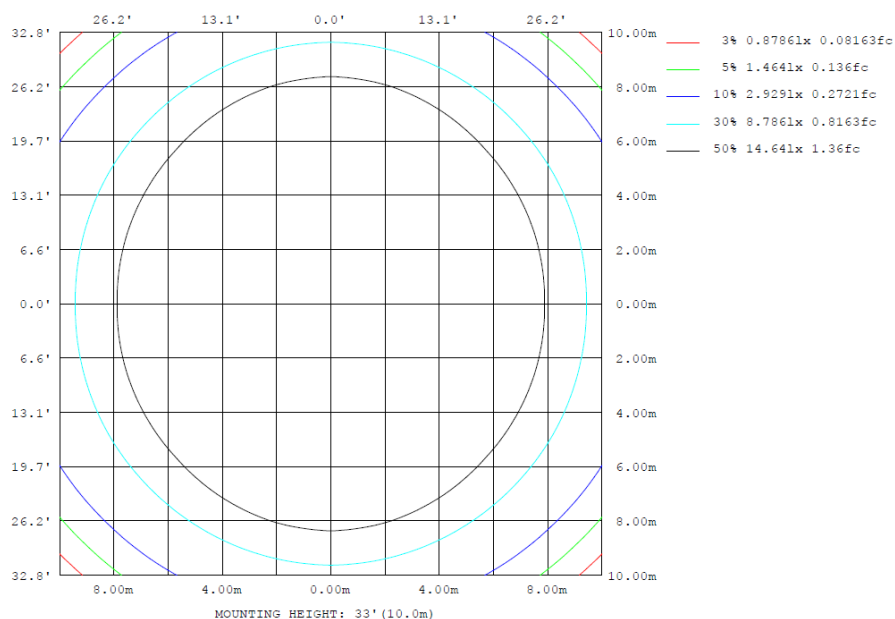
4.2 Goniophotometer Test

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	2992	2990	3003	2990	2992	2990	3003	2990	0- 10	282.7	282.7	4.06, 4.06
20	3193	3224	3243	3224	3193	3224	3243	3224	10- 20	883.2	1166	16.8, 16.8
30	3431	3502	3517	3502	3431	3502	3517	3502	20- 30	1569	2734	39.3, 39.3
40	2795	2941	3240	2941	2795	2941	3240	2941	30- 40	2115	4849	69.7, 69.7
50	982.4	871.3	719.1	871.3	982.4	871.3	719.1	871.3	40- 50	1507	6356	91.4, 91.4
60	204.4	176.3	121.8	176.3	204.4	176.3	121.8	176.3	50- 60	345.2	6702	96.3, 96.3
70	102.5	86.87	69.30	86.87	102.5	86.87	69.30	86.87	60- 70	119.3	6821	98, 98
80	35.34	49.13	43.40	49.13	35.34	49.13	43.40	49.13	70- 80	65.55	6886	99, 99
90	3.283	22.36	28.53	22.36	3.283	22.36	28.53	22.36	80- 90	32.55	6919	99.4, 99.4
100	2.978	8.992	20.98	8.992	2.978	8.992	20.98	8.992	90-100	13.08	6932	99.6, 99.6
110	4.932	1.684	8.108	1.684	4.932	1.684	8.108	1.684	100-110	5.527	6938	99.7, 99.7
120	10.61	1.590	1.145	1.590	10.61	1.590	1.145	1.590	110-120	2.718	6940	99.8, 99.8
130	11.63	2.241	1.619	2.241	11.63	2.241	1.619	2.241	120-130	2.676	6943	99.8, 99.8
140	11.63	4.207	3.242	4.207	11.63	4.207	3.242	4.207	130-140	3.533	6946	99.8, 99.8
150	13.31	5.704	4.386	5.704	13.31	5.704	4.386	5.704	140-150	4.088	6951	99.9, 99.9
160	11.63	5.612	4.577	5.612	11.63	5.612	4.577	5.612	150-160	3.249	6954	99.9, 99.9
170	23.17	8.410	7.234	8.410	23.17	8.410	7.234	8.410	160-170	2.483	6956	100, 100
180	23.92	8.979	7.917	8.979	23.92	8.979	7.917	8.979	170-180	1.094	6957	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	282.74	0-10	282.74	4.06%
10-20	883.15	0-20	1165.89	16.76%
20-30	1568.56	0-30	2734.45	39.31%
30-40	2114.87	0-40	4849.32	69.71%
40-50	1507.07	0-50	6356.39	91.38%
50-60	345.17	0-60	6701.56	96.34%
60-70	119.26	0-70	6820.82	98.05%
70-80	65.55	0-80	6886.37	99.00%
80-90	32.55	0-90	6918.92	99.46%
90-100	13.08	0-100	6932.00	99.65%
100-110	5.53	0-110	6937.53	99.73%
110-120	2.72	0-120	6940.25	99.77%
120-130	2.68	0-130	6942.93	99.81%
130-140	3.53	0-140	6946.46	99.86%
140-150	4.09	0-150	6950.55	99.92%
150-160	3.25	0-160	6953.80	99.96%
160-170	2.48	0-170	6956.28	100.00%
170-180	1.10	0-180	6957.38	100.02%

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2928	2926	2927	2922	2922	2926	2929	2926	2922	2922	2927	2926	2928	2926	2927	2922	2922	2926	2929
5	2946	2948	2951	2940	2936	2944	2946	2944	2936	2940	2951	2948	2946	2948	2951	2940	2936	2944	2946
10	2992	3000	2997	2990	2997	3007	3003	3007	2997	2990	2997	3000	2992	3000	2997	2990	2997	3007	3003
15	3089	3084	3090	3086	3106	3113	3110	3113	3106	3086	3090	3084	3089	3084	3090	3086	3106	3113	3110
20	3193	3212	3237	3224	3243	3261	3243	3261	3243	3224	3237	3212	3193	3212	3237	3224	3243	3261	3243
25	3347	3363	3384	3383	3398	3412	3392	3412	3398	3383	3384	3363	3347	3363	3384	3383	3398	3412	3392
30	3431	3468	3501	3502	3521	3534	3517	3534	3521	3502	3501	3468	3431	3468	3501	3502	3521	3534	3517
35	3296	3350	3396	3427	3495	3559	3565	3559	3495	3427	3396	3350	3296	3350	3396	3427	3495	3559	3565
40	2795	2841	2883	2941	3071	3187	3240	3187	3071	2941	2883	2841	2795	2841	2883	2941	3071	3187	3240
45	1983	2004	2017	1999	2008	2016	2042	2016	2008	1999	2017	2004	1983	2004	2017	1999	2008	2016	2042
50	982	971	934	871	847	758	719	758	847	871	934	971	982	971	934	871	847	758	719
55	380	383	356	332	308	266	239	266	308	332	356	383	380	383	356	332	308	266	239
60	204	209	192	176	159	138	122	138	159	176	192	209	204	209	192	176	159	138	122
65	141	141	130	120	105	90.3	83.1	90.3	105	120	130	141	141	130	120	105	90.3	83.1	
70	102	101	95.7	86.9	77.3	67.1	69.3	67.1	77.3	86.9	95.7	101	102	101	95.7	86.9	77.3	67.1	69.3
75	78.9	64.0	64.5	62.0	56.9	49.7	51.6	49.7	56.9	62.0	64.5	64.0	78.9	64.0	64.5	62.0	56.9	49.7	51.6
80	35.3	36.4	46.3	49.1	52.2	47.9	43.4	47.9	52.2	49.1	46.3	36.4	35.3	36.4	46.3	49.1	52.2	47.9	43.4
85	17.4	21.9	29.8	29.5	30.1	27.8	45.4	27.8	30.1	29.5	29.8	21.9	17.4	21.9	29.8	29.5	30.1	27.8	45.4
90	3.28	10.4	24.8	22.4	18.4	18.1	28.5	18.1	18.4	22.4	24.8	10.4	3.28	10.4	24.8	22.4	18.4	18.1	28.5
95	2.98	3.96	10.0	11.5	12.6	14.0	22.9	14.0	12.6	11.5	10.0	3.96	2.98	3.96	10.0	11.5	12.6	14.0	22.9
100	2.98	2.35	4.12	8.99	12.8	16.4	21.0	16.4	12.8	8.99	4.12	2.35	2.98	2.35	4.12	8.99	12.8	16.4	21.0
105	3.07	2.25	1.97	2.73	4.64	8.18	11.9	8.18	4.64	2.73	1.97	2.25	3.07	2.25	1.97	2.73	4.64	8.18	11.9
110	4.93	2.25	1.97	1.68	2.37	5.23	8.11	5.23	2.37	1.68	1.97	2.25	4.93	2.25	1.97	1.68	2.37	5.23	8.11
115	8.26	2.44	1.97	1.59	1.42	2.38	3.84	2.38	1.42	1.59	1.97	2.44	8.26	2.44	1.97	1.59	1.42	2.38	3.84
120	10.6	3.75	1.97	1.59	1.23	1.14	1.14	1.14	1.23	1.59	1.97	3.75	10.6	3.75	1.97	1.59	1.23	1.14	1.14
125	11.8	5.06	1.97	1.59	1.23	1.14	1.14	1.14	1.23	1.59	1.97	5.06	11.8	5.06	1.97	1.59	1.23	1.14	1.14
130	11.6	6.47	2.72	2.24	1.88	1.71	1.62	1.71	1.88	2.24	2.72	6.47	11.6	6.47	2.72	2.24	1.88	1.71	1.62
135	11.6	7.79	3.84	3.08	2.92	2.75	2.38	2.75	2.92	3.08	3.84	7.79	11.6	7.79	3.84	3.08	2.92	2.75	2.38
140	11.6	9.09	5.05	4.21	3.96	3.90	3.24	3.90	3.96	4.21	5.05	9.09	11.6	9.09	5.05	4.21	3.96	3.90	3.24
145	12.7	10.4	6.00	5.24	5.00	4.94	4.10	4.94	5.00	5.24	6.00	10.4	12.7	10.4	6.00	5.24	5.00	4.94	4.10
150	13.3	10.8	6.47	5.70	5.47	5.42	4.39	5.42	5.47	5.70	6.47	10.8	13.3	10.8	6.47	5.70	5.47	5.42	4.39
155	12.5	10.8	6.37	5.61	5.47	5.52	4.48	5.52	5.47	5.61	6.37	10.8	12.5	10.8	6.37	5.61	5.47	5.52	4.48
160	11.6	10.2	6.37	5.61	5.47	5.52	4.58	5.52	5.47	5.61	6.37	10.2	11.6	10.2	6.37	5.61	5.47	5.52	4.58
165	17.6	14.5	8.33	7.29	6.79	6.75	5.81	6.75	6.79	7.29	8.33	14.5	17.6	14.5	8.33	7.29	6.79	6.75	5.81
170	23.2	17.1	9.84	8.41	7.83	7.79	7.23	7.79	7.83	8.41	9.84	17.1	23.2	17.1	9.84	8.41	7.83	7.79	7.23
175	23.9	17.9	10.5	8.98	8.40	8.36	8.40	8.36	8.40	8.98	10.5	17.9	23.9	17.9	10.5	8.98	8.40	8.36	7.53
180	23.9	17.8	10.5	8.98	8.50	8.46	7.92	8.46	8.50	8.98	10.5	17.8	23.9	17.8	10.5	8.98	8.50	8.46	7.92

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
0	2926	2922	2922	2927	2926														
5	2944	2936	2940	2951	2948														
10	3007	2997	2990	2997	3000														
15	3113	3106	3086	3090	3084														
20	3261	3243	3224	3237	3212														
25	3412	3398	3383	3384	3363														
30	3534	3521	3502	3501	3468														
35	3559	3495	3427	3396	3350														
40	3187	3071	2941	2883	2841														
45	2016	2008	1999	2017	2004														
50	758	847	871	934	971														
55	266	308	332	356	383														
60	138	159	176	192	209														
65	90.3	105	120	130	141														
70	67.1	77.3	86.9	95.7	101														
75	49.7	56.9	62.0	64.5	64.0														
80	47.9	52.2	49.1	46.3	36.4														
85	27.8	30.1	29.5	29.8	21.9														
90	18.1	18.4	22.4	24.8	10.4														
95	14.0	12.6	11.5	10.0	3.96														
100	16.4	12.8	8.99	4.12	2.35														
105	8.18	4.64	2.73	1.97	2.25														
110	5.23	2.37	1.68	1.97	2.25														
115	2.38	1.42	1.59	1.97	2.44														
120	1.14	1.23	1.59	1.97	3.75														
125	1.14	1.23	1.59	1.97	5.06														
130	1.71	1.88	2.24	2.72	6.47														
135	2.75	2.92	3.08	3.84	7.79														
140	3.90	3.96	4.21	5.05	9.09														
145	4.94	5.00	5.24	6.00	10.4														
150	5.42	5.47	5.70	6.47	10.8														
155	5.52	5.47	5.61	6.37	10.8														
160	5.52	5.47	5.61	6.37	10.2														
165	6.75	6.79	7.29	8.33	14.5														
170	7.79	7.83	8.41	9.84	17.1														
175	8.36	8.40	8.98	10.5	17.9														
180	8.46	8.50	8.98	10.5	17.8														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @50W3000K	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	0.402	47.8	0.991	9.61

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*****