

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

Address: 408 W 14th St New York, NY 10014

Prepared By

Dongguan New Testing Centre Co., Ltd.

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

Prepare by:

Alan Wang

Engineer: Alan Wang

Date: 2025-10-22

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

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		7850
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	136.3
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		57.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.74
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	2725±145	2795
			4 steps	2725±83	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		91.2
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		54
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		101
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-6%
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		0.483
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		57.6
(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 @60W2700K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @60W2700K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @60W2700K	-	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 @60W2700K, 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 @60W2700K	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±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 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.

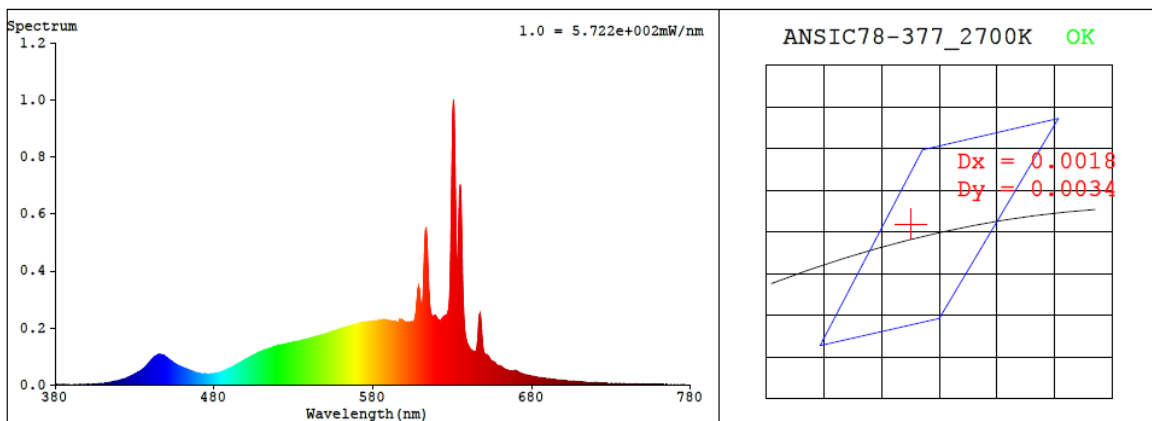
The sample was measured using 4 π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to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

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.483	57.6	0.993

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
2795	91.2	54	0.0011	3.1	89	101	-6%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4541$ $y = 0.4121$ / $u' = 0.2581$ $v' = 0.5271$ ($duv=1.09e-03$)

CCT= 2795K Prcp WL: $L_d=583.4nm$ Purity=60.0%

Peak WL: $L_p=631nm$ FWHM: $=3.6nm$ Ratio: $R=26.0\%$ $G=71.9\%$ $B=2.1\%$

Render Index: $R_a = 91.2$ AvgR = 87.7 TM30: $R_f=88$ $R_g=101$

EEL: 0.09953 A++ Highest

R1 =92	R2 =94	R3 =93	R4 =93	R5 =91	R6 =93	R7 =92
R8 =81	R9 =54	R10=83	R11=94	R12=81	R13=92	R14=95 R15=88

4.1 Integrating Sphere Test

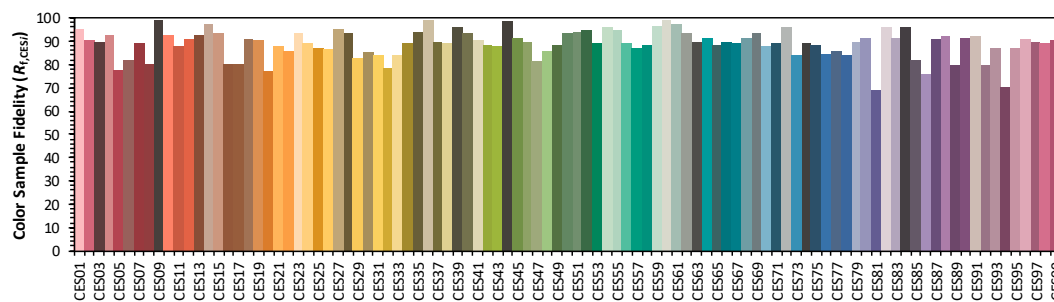
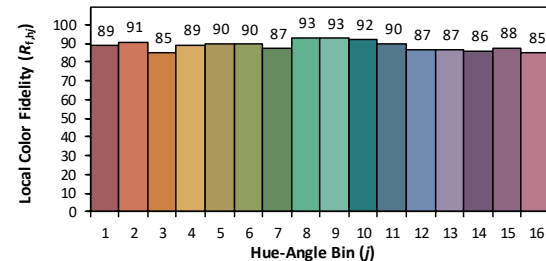
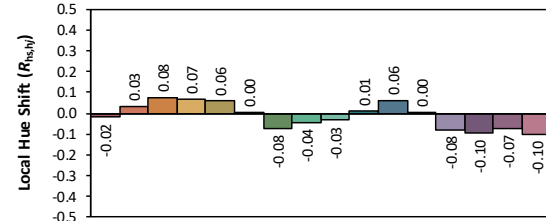
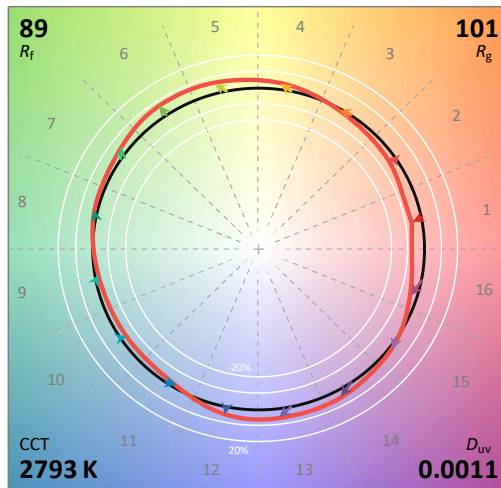
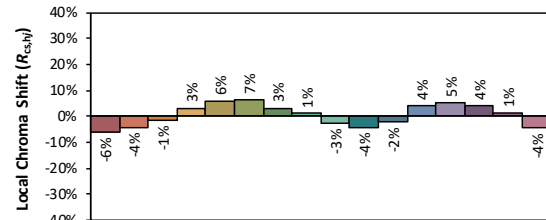
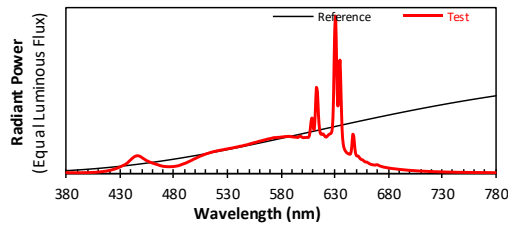
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @60W2700K



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

x 0.4541
 y 0.4120
 u' 0.2582
 v' 0.5270

CIE 13.3-1995
(CRI)

R_a 91
 R_g 54

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	1.06E-04	514	1.27E-04	581	2.24E-04	648	2.24E-04	715	9.70E-06
381	1.70E-06	448	1.04E-04	515	1.28E-04	582	2.25E-04	649	1.48E-04	716	9.50E-06
382	1.00E-07	449	1.01E-04	516	1.30E-04	583	2.25E-04	650	1.13E-04	717	9.20E-06
383	7.00E-07	450	9.65E-05	517	1.32E-04	584	2.27E-04	651	1.05E-04	718	8.70E-06
384	8.00E-07	451	9.19E-05	518	1.34E-04	585	2.26E-04	652	1.05E-04	719	8.40E-06
385	1.00E-06	452	8.74E-05	519	1.34E-04	586	2.27E-04	653	9.70E-05	720	8.40E-06
386	1.00E-06	453	8.38E-05	520	1.37E-04	587	2.28E-04	654	8.80E-05	721	8.00E-06
387	7.00E-07	454	7.82E-05	521	1.38E-04	588	2.28E-04	655	8.35E-05	722	7.90E-06
388	1.10E-06	455	7.56E-05	522	1.39E-04	589	2.26E-04	656	8.14E-05	723	7.30E-06
389	3.00E-07	456	7.25E-05	523	1.41E-04	590	2.25E-04	657	7.63E-05	724	7.30E-06
390	4.00E-07	457	6.93E-05	524	1.42E-04	591	2.25E-04	658	7.06E-05	725	7.20E-06
391	3.00E-07	458	6.61E-05	525	1.43E-04	592	2.23E-04	659	6.77E-05	726	7.00E-06
392	1.20E-06	459	6.41E-05	526	1.44E-04	593	2.23E-04	660	6.74E-05	727	6.70E-06
393	6.00E-07	460	6.15E-05	527	1.46E-04	594	2.22E-04	661	6.36E-05	728	6.50E-06
394	9.00E-07	461	5.91E-05	528	1.48E-04	595	2.21E-04	662	5.93E-05	729	6.30E-06
395	1.30E-06	462	5.68E-05	529	1.48E-04	596	2.21E-04	663	5.53E-05	730	6.00E-06
396	1.40E-06	463	5.50E-05	530	1.50E-04	597	2.28E-04	664	5.33E-05	731	5.70E-06
397	1.60E-06	464	5.25E-05	531	1.51E-04	598	2.29E-04	665	5.13E-05	732	5.80E-06
398	1.60E-06	465	5.08E-05	532	1.52E-04	599	2.26E-04	666	5.00E-05	733	5.70E-06
399	1.20E-06	466	4.84E-05	533	1.53E-04	600	2.21E-04	667	4.92E-05	734	5.30E-06
400	2.40E-06	467	4.62E-05	534	1.55E-04	601	2.20E-04	668	4.83E-05	735	5.00E-06
401	2.00E-06	468	4.40E-05	535	1.56E-04	602	2.20E-04	669	5.04E-05	736	5.10E-06
402	2.00E-06	469	4.26E-05	536	1.57E-04	603	2.21E-04	670	5.07E-05	737	4.80E-06
403	2.40E-06	470	4.11E-05	537	1.59E-04	604	2.21E-04	671	4.72E-05	738	4.60E-06
404	2.70E-06	471	4.02E-05	538	1.60E-04	605	2.20E-04	672	4.38E-05	739	4.70E-06
405	3.10E-06	472	3.97E-05	539	1.62E-04	606	2.24E-04	673	4.15E-05	740	4.20E-06
406	3.60E-06	473	3.92E-05	540	1.63E-04	607	2.52E-04	674	3.95E-05	741	4.30E-06
407	3.60E-06	474	3.85E-05	541	1.66E-04	608	3.17E-04	675	3.73E-05	742	4.20E-06
408	4.50E-06	475	3.85E-05	542	1.66E-04	609	3.41E-04	676	3.56E-05	743	4.00E-06
409	5.20E-06	476	3.83E-05	543	1.67E-04	610	2.89E-04	677	3.47E-05	744	3.80E-06
410	5.30E-06	477	3.88E-05	544	1.68E-04	611	2.72E-04	678	3.34E-05	745	3.60E-06
411	6.30E-06	478	3.91E-05	545	1.70E-04	612	3.74E-04	679	3.19E-05	746	3.60E-06
412	7.00E-06	479	3.88E-05	546	1.72E-04	613	5.30E-04	680	3.07E-05	747	3.50E-06
413	7.50E-06	480	3.98E-05	547	1.73E-04	614	5.03E-04	681	2.99E-05	748	3.50E-06
414	8.50E-06	481	4.08E-05	548	1.75E-04	615	3.59E-04	682	2.87E-05	749	3.30E-06
415	9.40E-06	482	4.19E-05	549	1.77E-04	616	2.71E-04	683	2.75E-05	750	3.30E-06
416	1.05E-05	483	4.29E-05	550	1.78E-04	617	2.43E-04	684	2.67E-05	751	3.10E-06
417	1.14E-05	484	4.42E-05	551	1.81E-04	618	2.41E-04	685	2.61E-05	752	2.90E-06
418	1.25E-05	485	4.63E-05	552	1.82E-04	619	2.44E-04	686	2.54E-05	753	3.00E-06
419	1.41E-05	486	4.87E-05	553	1.85E-04	620	2.38E-04	687	2.46E-05	754	2.90E-06
420	1.54E-05	487	5.11E-05	554	1.86E-04	621	2.28E-04	688	2.38E-05	755	2.90E-06
421	1.70E-05	488	5.37E-05	555	1.89E-04	622	2.23E-04	689	2.30E-05	756	2.70E-06
422	1.84E-05	489	5.61E-05	556	1.90E-04	623	2.27E-04	690	2.21E-05	757	2.60E-06
423	2.08E-05	490	5.89E-05	557	1.91E-04	624	2.35E-04	691	2.15E-05	758	2.60E-06
424	2.21E-05	491	6.05E-05	558	1.94E-04	625	2.41E-04	692	2.06E-05	759	2.40E-06
425	2.44E-05	492	6.38E-05	559	1.96E-04	626	2.44E-04	693	2.03E-05	760	2.50E-06
426	2.68E-05	493	6.71E-05	560	1.97E-04	627	2.50E-04	694	1.94E-05	761	2.20E-06
427	2.87E-05	494	7.03E-05	561	1.99E-04	628	2.83E-04	695	1.88E-05	762	2.00E-06
428	3.16E-05	495	7.33E-05	562	2.01E-04	629	4.63E-04	696	1.82E-05	763	2.20E-06
429	3.48E-05	496	7.65E-05	563	2.02E-04	630	8.53E-04	697	1.76E-05	764	2.10E-06
430	3.74E-05	497	7.97E-05	564	2.05E-04	631	9.74E-04	698	1.70E-05	765	2.10E-06
431	4.07E-05	498	8.36E-05	565	2.06E-04	632	6.52E-04	699	1.64E-05	766	2.00E-06
432	4.43E-05	499	8.69E-05	566	2.07E-04	633	4.17E-04	700	1.59E-05	767	2.10E-06
433	4.69E-05	500	8.91E-05	567	2.10E-04	634	5.51E-04	701	1.54E-05	768	2.00E-06
434	5.05E-05	501	9.27E-05	568	2.11E-04	635	7.03E-04	702	1.48E-05	769	1.90E-06
435	5.38E-05	502	9.62E-05	569	2.13E-04	636	4.99E-04	703	1.48E-05	770	1.70E-06
436	5.87E-05	503	9.88E-05	570	2.14E-04	637	2.72E-04	704	1.41E-05	771	2.10E-06
437	6.44E-05	504	1.02E-04	571	2.15E-04	638	1.85E-04	705	1.35E-05	772	1.70E-06
438	7.02E-05	505	1.05E-04	572	2.17E-04	639	1.52E-04	706	1.29E-05	773	1.60E-06
439	7.69E-05	506	1.08E-04	573	2.19E-04	640	1.38E-04	707	1.26E-05	774	1.70E-06
440	8.27E-05	507	1.10E-04	574	2.20E-04	641	1.28E-04	708	1.21E-05	775	1.50E-06
441	8.93E-05	508	1.13E-04	575	2.20E-04	642	1.23E-04	709	1.18E-05	776	1.70E-06
442	9.44E-05	509	1.15E-04	576	2.19E-04	643	1.19E-04	710	1.15E-05	777	1.40E-06
443	9.95E-05	510	1.18E-04	577	2.22E-04	644	1.16E-04	711	1.10E-05	778	1.30E-06
444	1.03E-04	511	1.21E-04	578	2.22E-04	645	1.19E-04	712	1.09E-05	779	1.30E-06
445	1.05E-04	512	1.22E-04	579	2.22E-04	646	1.60E-04	713	1.04E-05	780	1.30E-06
446	1.07E-04	513	1.24E-04	580	2.23E-04	647	2.40E-04	714	1.01E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @60W2700K	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	0.483	57.6	0.993
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

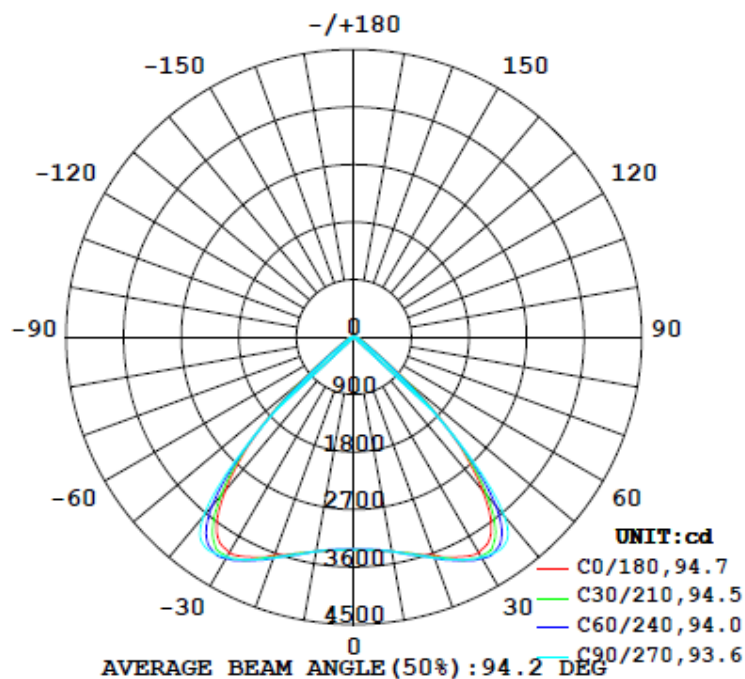
Test Result

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°)
7850	93.1	107.8	67.4	90.1	136.3	99.4%

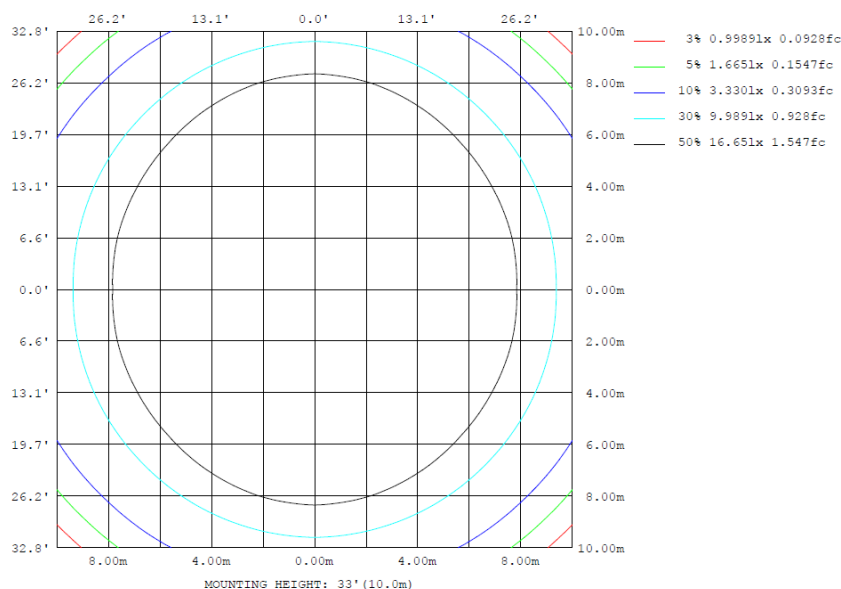
4.2 Goniophotometer Test

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	Φ zone	Φ total	%lum, lamp
10	3405	3395	3409	3395	3405	3395	3409	3395	0- 10	321.4	321.4	4.09,4.09
20	3632	3667	3682	3667	3632	3667	3682	3667	10- 20	1004	1325	16.9,16.9
30	3898	3990	3975	3990	3898	3990	3975	3990	20- 30	1782	3108	39.6,39.6
40	3130	3314	3664	3314	3130	3314	3664	3314	30- 40	2396	5504	70.1,70.1
50	1065	952.8	790.1	952.8	1065	952.8	790.1	952.8	40- 50	1680	7184	91.5,91.5
60	226.3	197.4	135.7	197.4	226.3	197.4	135.7	197.4	50- 60	379.1	7563	96.3,96.3
70	115.2	97.82	78.07	97.82	115.2	97.82	78.07	97.82	60- 70	133.6	7697	98,98
80	40.09	55.33	49.24	55.33	40.09	55.33	49.24	55.33	70- 80	73.62	7770	99,99
90	3.566	24.93	31.94	24.93	3.566	24.93	31.94	24.93	80- 90	36.38	7807	99.4,99.4
100	3.267	9.987	23.94	9.987	3.267	9.987	23.94	9.987	90-100	14.68	7822	99.6,99.6
110	5.685	1.788	9.010	1.788	5.685	1.788	9.010	1.788	100-110	6.112	7828	99.7,99.7
120	12.13	1.693	1.246	1.693	12.13	1.693	1.246	1.693	110-120	3.007	7831	99.8,99.8
130	13.16	2.534	1.909	2.534	13.16	2.534	1.909	2.534	120-130	3.041	7834	99.8,99.8
140	13.16	4.794	3.827	4.794	13.16	4.794	3.827	4.794	130-140	4.023	7838	99.8,99.8
150	15.12	6.300	5.167	6.300	15.12	6.300	5.167	6.300	140-150	4.665	7842	99.9,99.9
160	13.25	6.487	5.269	6.487	13.25	6.487	5.269	6.487	150-160	3.691	7846	99.9,99.9
170	26.50	9.680	7.756	9.680	26.50	9.680	7.756	9.680	160-170	2.854	7849	100,100
180	27.16	10.25	8.909	10.25	27.16	10.25	8.909	10.25	170-180	1.251	7850	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	321.45	0-10	321.45	4.10%
10-20	1003.95	0-20	1325.40	16.89%
20-30	1782.41	0-30	3107.81	39.60%
30-40	2396.43	0-40	5504.24	70.13%
40-50	1679.87	0-50	7184.11	91.53%
50-60	379.13	0-60	7563.24	96.36%
60-70	133.59	0-70	7696.83	98.06%
70-80	73.62	0-80	7770.45	99.00%
80-90	36.38	0-90	7806.83	99.46%
90-100	14.68	0-100	7821.51	99.65%
100-110	6.11	0-110	7827.62	99.73%
110-120	3.01	0-120	7830.63	99.77%
120-130	3.04	0-130	7833.67	99.81%
130-140	4.02	0-140	7837.69	99.86%
140-150	4.66	0-150	7842.35	99.92%
150-160	3.69	0-160	7846.04	99.96%
160-170	2.85	0-170	7848.89	100.00%
170-180	1.26	0-180	7850.15	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
γ (DEG)	0	3328	3323	3332	3332	3322	3332	3332	3322	3332	3332	3323	3328	3323	3332	3332	3322	3322	3332
5	3355	3356	3349	3352	3338	3343	3341	3343	3338	3352	3349	3356	3355	3356	3349	3352	3338	3343	3341
10	3405	3416	3405	3395	3409	3410	3409	3410	3409	3395	3405	3416	3405	3416	3405	3395	3409	3410	3409
15	3510	3516	3507	3508	3530	3537	3529	3537	3530	3508	3507	3516	3510	3516	3507	3508	3530	3537	3529
20	3632	3659	3671	3667	3684	3698	3682	3698	3684	3667	3671	3659	3632	3659	3671	3667	3684	3698	3682
25	3801	3832	3848	3844	3858	3869	3843	3869	3858	3844	3848	3832	3801	3832	3848	3844	3858	3869	3843
30	3898	3959	3971	3990	4001	4004	3975	4004	4001	3990	3971	3959	3898	3959	3971	3990	4001	4004	3975
35	3740	3812	3845	3890	3975	4032	4034	4032	3975	3890	3845	3812	3740	3812	3845	3890	3975	4032	4034
40	3130	3205	3237	3314	3457	3594	3664	3594	3457	3314	3237	3205	3130	3205	3237	3314	3457	3594	3664
45	2197	2229	2236	2226	2241	2246	2278	2246	2241	2226	2236	2229	2197	2229	2236	2226	2241	2246	2278
50	1065	1063	1019	953	930	834	790	834	930	953	1019	1063	1065	1063	1019	953	930	834	790
55	416	421	390	364	342	294	265	294	342	364	390	421	416	421	390	364	342	294	265
60	226	233	214	197	177	153	136	153	177	197	214	233	226	233	214	197	177	153	136
65	159	158	146	134	118	101	93.7	101	118	134	146	158	159	158	146	134	118	101	93.7
70	115	113	108	97.8	87.4	75.3	78.1	75.3	87.4	97.8	108	113	115	113	108	97.8	87.4	75.3	78.1
75	88.2	71.1	72.1	69.3	64.0	56.0	57.6	56.0	64.0	69.3	72.1	71.1	88.2	71.1	72.1	69.3	64.0	56.0	57.6
80	40.1	40.5	52.1	55.3	59.1	54.1	49.2	54.1	59.1	55.3	52.1	40.5	40.1	40.5	52.1	55.3	59.1	54.1	49.2
85	19.3	24.7	33.0	32.7	33.4	31.2	53.8	31.2	33.4	32.7	33.0	24.7	19.3	24.7	33.0	32.7	33.4	31.2	53.8
90	3.57	11.7	27.2	24.9	20.6	20.2	31.9	20.2	20.6	24.9	27.2	11.7	3.57	11.7	27.2	24.9	20.6	20.2	31.9
95	3.27	4.35	11.1	12.8	14.0	16.1	25.7	16.1	14.0	12.8	11.1	4.35	3.27	4.35	11.1	12.8	14.0	16.1	25.7
100	3.27	2.55	4.54	9.99	14.6	18.9	23.9	18.9	14.6	9.99	4.54	2.55	3.27	2.55	4.54	9.99	14.6	18.9	23.9
105	3.73	2.46	2.26	2.93	5.15	8.99	13.3	8.99	5.15	2.93	2.26	2.46	3.73	2.46	2.26	2.93	5.15	8.99	13.3
110	5.68	2.46	2.16	1.79	2.58	5.83	9.01	5.83	2.58	1.79	2.16	2.46	5.68	2.46	2.16	1.79	2.58	5.83	9.01
115	9.32	2.83	2.16	1.69	1.42	2.59	4.03	2.59	1.42	1.69	2.16	2.83	9.32	2.83	2.16	1.69	1.42	2.59	4.03
120	12.1	4.24	2.16	1.69	1.33	1.34	1.25	1.34	1.33	1.69	2.16	4.24	12.1	4.24	2.16	1.69	1.33	1.34	1.25
125	13.5	5.76	2.44	1.78	1.33	1.34	1.25	1.34	1.33	1.78	2.44	5.76	13.5	5.76	2.44	1.78	1.33	1.34	1.25
130	13.2	7.36	3.29	2.53	2.27	2.09	1.91	2.09	2.27	2.53	3.29	7.36	13.2	7.36	3.29	2.53	2.27	2.09	1.91
135	13.2	8.78	4.33	3.57	3.41	3.15	2.87	3.15	3.41	3.57	4.33	8.78	13.2	8.78	4.33	3.57	3.41	3.15	2.87
140	13.2	10.3	5.64	4.79	4.54	4.49	3.83	4.49	4.54	4.79	5.64	10.3	13.2	10.3	5.64	4.79	4.54	4.49	3.83
145	14.3	11.9	7.05	5.92	5.79	5.63	4.69	5.63	5.79	5.92	7.05	11.9	14.3	11.9	7.05	5.92	5.79	5.63	4.69
150	15.1	12.3	7.24	6.30	6.17	6.02	5.17	6.02	6.17	6.30	7.24	12.3	15.1	12.3	7.24	6.30	6.17	6.02	5.17
155	13.9	12.0	7.24	6.39	6.26	6.21	5.27	6.21	6.26	6.39	7.24	12.0	13.9	12.0	7.24	6.39	6.26	6.21	5.27
160	13.3	11.5	7.15	6.49	6.35	6.21	5.27	6.21	6.35	6.49	7.15	11.5	13.3	11.5	7.15	6.49	6.35	6.21	5.27
165	20.3	16.7	9.49	8.18	7.77	7.63	6.61	7.63	7.77	8.18	9.49	16.7	20.3	16.7	9.49	8.18	7.77	7.63	6.61
170	26.5	19.6	11.5	9.68	9.10	8.88	7.76	8.88	9.10	9.68	11.5	19.6	26.5	19.6	11.5	9.68	9.10	8.88	7.76
175	27.2	20.4	12.0	10.2	9.67	9.55	8.71	9.55	9.67	10.2	12.0	20.4	27.2	20.4	12.0	10.2	9.67	9.55	8.71
180	27.2	20.8	12.0	10.2	9.77	9.55	8.91	9.55	9.77	10.2	12.0	20.8	27.2	20.8	12.0	10.2	9.77	9.55	8.91

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
γ (DEG)	0	3322	3322	3332	3332	3323													
5	3343	3338	3352	3349	3356														
10	3410	3409	3395	3405	3416														
15	3537	3530	3508	3507	3516														
20	3698	3684	3667	3671	3659														
25	3869	3858	3844	3848	3832														
30	4004	4001	3990	3971	3959														
35	4032	3975	3890	3845	3812														
40	3594	3457	3314	3237	3205														
45	2246	2241	2226	2236	2229														
50	834	930	953	1019	1063														
55	294	342	364	390	421														
60	153	177	197	214	233														
65	101	118	134	146	158														
70	75.3	87.4	97.8	108	113														
75	56.0	64.0	69.3	72.1	71.1														
80	54.1	59.1	55.3	52.1	40.5														
85	31.2	33.4	32.7	33.0	24.7														
90	20.2	20.6	24.9	27.2	11.7														
95	16.1	14.0	12.8	11.1	4.35														
100	18.9	14.6	9.99	4.54	2.55														
105	8.99	5.15	2.93	2.26	2.46														
110	5.83	2.58	1.79	2.16	2.46														
115	2.59	1.42	1.69	2.16	2.83														
120	1.34	1.33	1.69	2.16	4.24														
125	1.34	1.33	1.78	2.44	5.76														
130	2.09	2.27	2.53	3.29	7.36														
135	3.15	3.41	3.57	4.33	8.78														
140	4.49	4.54	4.79	5.64	10.3														
145	5.63	5.79	5.92	7.05	11.9														
150	6.02	6.17	6.30	7.24	12.3														
155	6.21	6.26	6.39	7.24	12.0														
160	6.21	6.35	6.49	7.15	11.5														
165	7.63	7.77	8.18	9.49	16.7														
170	8.88	9.10	9.68	11.5	19.6														
175	9.55	9.67	10.2	12.0	20.4														
180	9.55	9.77	10.2	12.0	20.8														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @60W2700K	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	0.483	57.6	0.993	9.74

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*****