

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		5943
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	155.6
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		38.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.81
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.986
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	3960
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.9
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		82
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		91
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		0.323
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		38.2
(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 @40W4000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @40W4000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @40W4000K	-	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 @40W4000K, 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 @40W4000K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

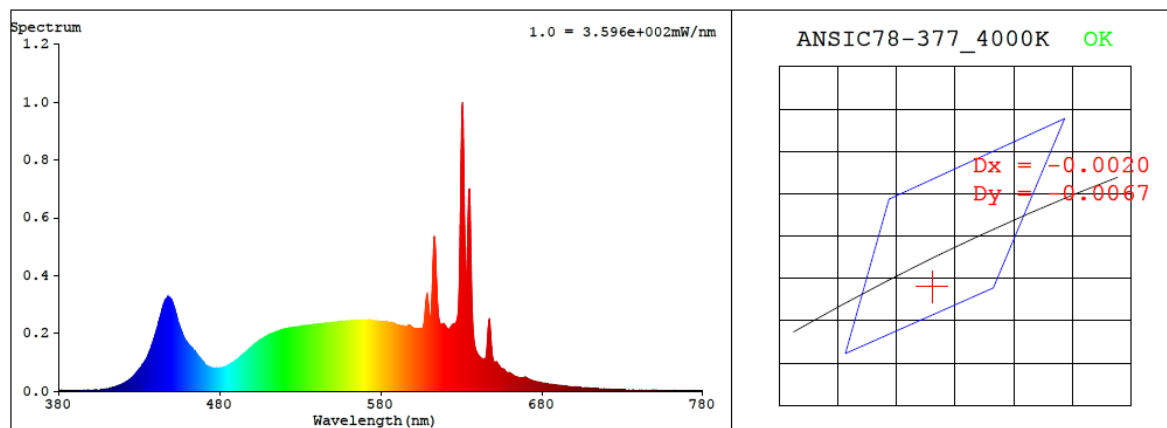
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.323	38.2	0.986

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3960	93.9	82	-0.0026	3.8	91	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3803$ $y = 0.3712$ / $u' = 0.2272$ $v' = 0.4991$ ($duv = -2.59e-03$)

CCT= 3960K Prcp WL: $L_d = 580.7\text{nm}$ Purity=25.5%

Peak WL: $L_p = 631\text{nm}$ FWHM: $\approx 3.5\text{nm}$ Ratio: R=20.9% G=75.5% B=3.6%

Render Index: $R_a = 93.9$ AvgR = 91.6 TM30: $R_f = 91$ $R_g = 104$

EEL: 0.08786 A++ Highest

R1 =98 R2 =95 R3 =89 R4 =93 R5 =96 R6 =93 R7 =94

R8 =94 R9 =82 R10=85 R11=92 R12=78 R13=96 R14=93 R15=97

4.1 Integrating Sphere Test

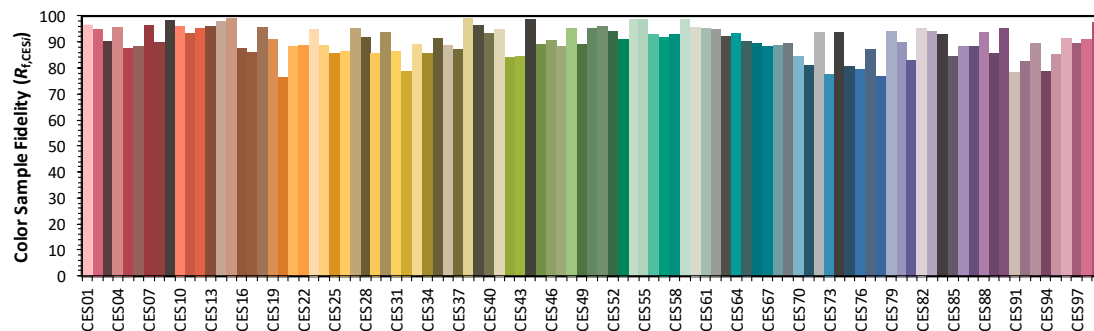
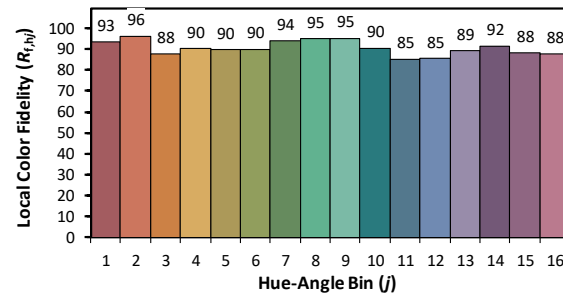
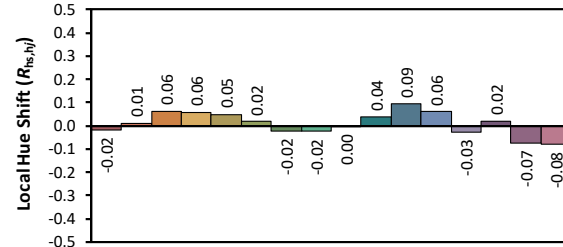
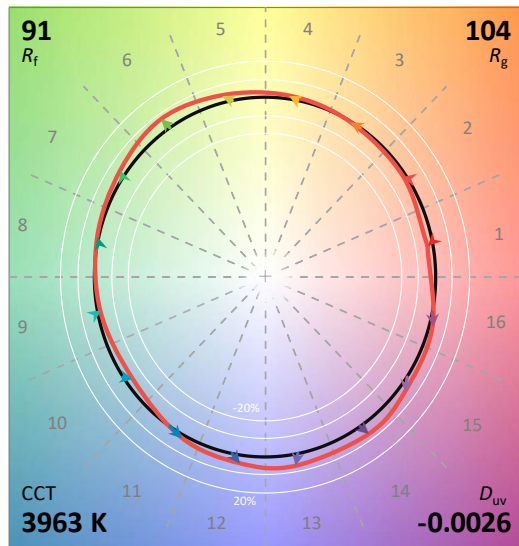
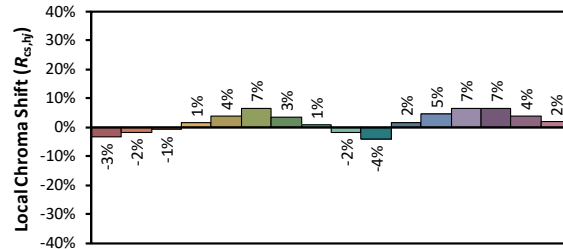
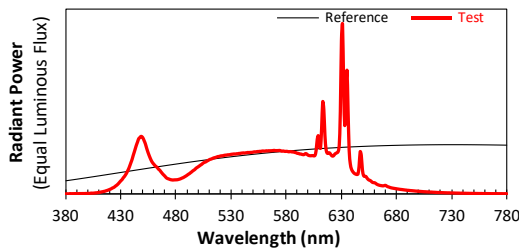
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @40W4000K



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

x 0.3802
 y 0.3710
 u' 0.2273
 v' 0.4990

CIE 13.3-1995
(CRI)

R_a 94
 R_g 82

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	1.30E-06	447	3.18E-04	514	2.04E-04	581	2.41E-04	648	2.18E-04	715	9.40E-06
381	1.20E-06	448	3.25E-04	515	2.05E-04	582	2.39E-04	649	1.39E-04	716	9.10E-06
382	6.00E-07	449	3.24E-04	516	2.07E-04	583	2.39E-04	650	1.05E-04	717	8.60E-06
383	1.40E-06	450	3.15E-04	517	2.10E-04	584	2.40E-04	651	9.93E-05	718	8.40E-06
384	2.00E-06	451	3.01E-04	518	2.12E-04	585	2.38E-04	652	1.00E-04	719	8.20E-06
385	1.50E-06	452	2.85E-04	519	2.12E-04	586	2.38E-04	653	9.18E-05	720	8.00E-06
386	1.70E-06	453	2.64E-04	520	2.14E-04	587	2.36E-04	654	8.38E-05	721	7.60E-06
387	1.70E-06	454	2.44E-04	521	2.16E-04	588	2.35E-04	655	7.90E-05	722	7.40E-06
388	2.00E-06	455	2.26E-04	522	2.16E-04	589	2.33E-04	656	7.64E-05	723	7.20E-06
389	2.00E-06	456	2.10E-04	523	2.17E-04	590	2.30E-04	657	7.18E-05	724	6.90E-06
390	1.80E-06	457	1.95E-04	524	2.19E-04	591	2.29E-04	658	6.63E-05	725	6.80E-06
391	1.70E-06	458	1.83E-04	525	2.20E-04	592	2.27E-04	659	6.42E-05	726	6.40E-06
392	2.10E-06	459	1.74E-04	526	2.20E-04	593	2.26E-04	660	6.36E-05	727	6.50E-06
393	2.40E-06	460	1.66E-04	527	2.22E-04	594	2.24E-04	661	6.04E-05	728	6.40E-06
394	2.20E-06	461	1.59E-04	528	2.22E-04	595	2.23E-04	662	5.56E-05	729	6.00E-06
395	2.50E-06	462	1.54E-04	529	2.23E-04	596	2.23E-04	663	5.25E-05	730	5.70E-06
396	2.40E-06	463	1.48E-04	530	2.24E-04	597	2.27E-04	664	5.02E-05	731	5.70E-06
397	2.50E-06	464	1.40E-04	531	2.25E-04	598	2.28E-04	665	4.85E-05	732	5.60E-06
398	2.90E-06	465	1.35E-04	532	2.26E-04	599	2.23E-04	666	4.74E-05	733	5.30E-06
399	2.70E-06	466	1.27E-04	533	2.26E-04	600	2.19E-04	667	4.64E-05	734	5.10E-06
400	3.50E-06	467	1.20E-04	534	2.26E-04	601	2.17E-04	668	4.61E-05	735	5.00E-06
401	3.20E-06	468	1.12E-04	535	2.28E-04	602	2.16E-04	669	4.77E-05	736	4.90E-06
402	3.90E-06	469	1.06E-04	536	2.28E-04	603	2.17E-04	670	4.86E-05	737	4.70E-06
403	4.90E-06	470	9.92E-05	537	2.29E-04	604	2.17E-04	671	4.49E-05	738	4.40E-06
404	4.60E-06	471	9.20E-05	538	2.29E-04	605	2.16E-04	672	4.14E-05	739	4.60E-06
405	4.90E-06	472	8.79E-05	539	2.31E-04	606	2.18E-04	673	3.95E-05	740	4.40E-06
406	5.60E-06	473	8.56E-05	540	2.31E-04	607	2.45E-04	674	3.70E-05	741	3.90E-06
407	6.40E-06	474	8.32E-05	541	2.32E-04	608	3.08E-04	675	3.52E-05	742	4.10E-06
408	6.70E-06	475	8.10E-05	542	2.31E-04	609	3.29E-04	676	3.37E-05	743	3.90E-06
409	8.00E-06	476	7.99E-05	543	2.33E-04	610	2.75E-04	677	3.26E-05	744	3.70E-06
410	8.90E-06	477	7.90E-05	544	2.33E-04	611	2.60E-04	678	3.14E-05	745	3.70E-06
411	9.40E-06	478	7.97E-05	545	2.35E-04	612	3.69E-04	679	3.05E-05	746	3.40E-06
412	1.15E-05	479	7.99E-05	546	2.34E-04	613	5.20E-04	680	2.93E-05	747	3.50E-06
413	1.24E-05	480	8.03E-05	547	2.35E-04	614	4.78E-04	681	2.83E-05	748	3.30E-06
414	1.41E-05	481	8.07E-05	548	2.35E-04	615	3.33E-04	682	2.74E-05	749	3.10E-06
415	1.51E-05	482	8.21E-05	549	2.36E-04	616	2.53E-04	683	2.64E-05	750	3.20E-06
416	1.73E-05	483	8.39E-05	550	2.37E-04	617	2.31E-04	684	2.56E-05	751	3.20E-06
417	1.92E-05	484	8.60E-05	551	2.38E-04	618	2.30E-04	685	2.50E-05	752	2.90E-06
418	2.14E-05	485	8.91E-05	552	2.38E-04	619	2.33E-04	686	2.40E-05	753	3.00E-06
419	2.39E-05	486	9.15E-05	553	2.39E-04	620	2.26E-04	687	2.32E-05	754	2.70E-06
420	2.66E-05	487	9.47E-05	554	2.40E-04	621	2.18E-04	688	2.23E-05	755	2.60E-06
421	2.91E-05	488	9.85E-05	555	2.40E-04	622	2.14E-04	689	2.18E-05	756	2.60E-06
422	3.32E-05	489	1.02E-04	556	2.41E-04	623	2.17E-04	690	2.07E-05	757	2.70E-06
423	3.59E-05	490	1.07E-04	557	2.41E-04	624	2.26E-04	691	2.05E-05	758	2.40E-06
424	3.96E-05	491	1.11E-04	558	2.43E-04	625	2.30E-04	692	1.96E-05	759	2.40E-06
425	4.49E-05	492	1.15E-04	559	2.43E-04	626	2.34E-04	693	1.91E-05	760	2.30E-06
426	4.93E-05	493	1.20E-04	560	2.42E-04	627	2.39E-04	694	1.86E-05	761	2.40E-06
427	5.49E-05	494	1.25E-04	561	2.43E-04	628	2.74E-04	695	1.80E-05	762	2.20E-06
428	6.16E-05	495	1.30E-04	562	2.44E-04	629	4.64E-04	696	1.74E-05	763	2.20E-06
429	6.89E-05	496	1.34E-04	563	2.43E-04	630	8.67E-04	697	1.67E-05	764	2.00E-06
430	7.58E-05	497	1.39E-04	564	2.45E-04	631	9.59E-04	698	1.63E-05	765	2.00E-06
431	8.19E-05	498	1.45E-04	565	2.44E-04	632	6.09E-04	699	1.55E-05	766	1.70E-06
432	9.15E-05	499	1.50E-04	566	2.45E-04	633	3.87E-04	700	1.52E-05	767	1.90E-06
433	9.85E-05	500	1.54E-04	567	2.45E-04	634	5.49E-04	701	1.49E-05	768	1.80E-06
434	1.08E-04	501	1.58E-04	568	2.46E-04	635	7.00E-04	702	1.43E-05	769	1.80E-06
435	1.18E-04	502	1.63E-04	569	2.46E-04	636	4.73E-04	703	1.38E-05	770	1.80E-06
436	1.31E-04	503	1.67E-04	570	2.45E-04	637	2.49E-04	704	1.33E-05	771	2.00E-06
437	1.44E-04	504	1.72E-04	571	2.45E-04	638	1.72E-04	705	1.28E-05	772	1.60E-06
438	1.61E-04	505	1.77E-04	572	2.45E-04	639	1.43E-04	706	1.26E-05	773	1.70E-06
439	1.78E-04	506	1.80E-04	573	2.46E-04	640	1.30E-04	707	1.21E-05	774	1.60E-06
440	1.95E-04	507	1.82E-04	574	2.46E-04	641	1.21E-04	708	1.19E-05	775	1.60E-06
441	2.17E-04	508	1.86E-04	575	2.44E-04	642	1.15E-04	709	1.14E-05	776	1.60E-06
442	2.37E-04	509	1.90E-04	576	2.42E-04	643	1.12E-04	710	1.09E-05	777	1.40E-06
443	2.58E-04	510	1.94E-04	577	2.43E-04	644	1.10E-04	711	1.08E-05	778	1.60E-06
444	2.78E-04	511	1.96E-04	578	2.42E-04	645	1.13E-04	712	1.07E-05	779	1.60E-06
445	2.95E-04	512	1.98E-04	579	2.41E-04	646	1.57E-04	713	1.00E-05	780	1.60E-06
446	3.12E-04	513	2.01E-04	580	2.41E-04	647	2.39E-04	714	9.80E-06	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @40W4000K	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	0.323	38.2	0.986
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

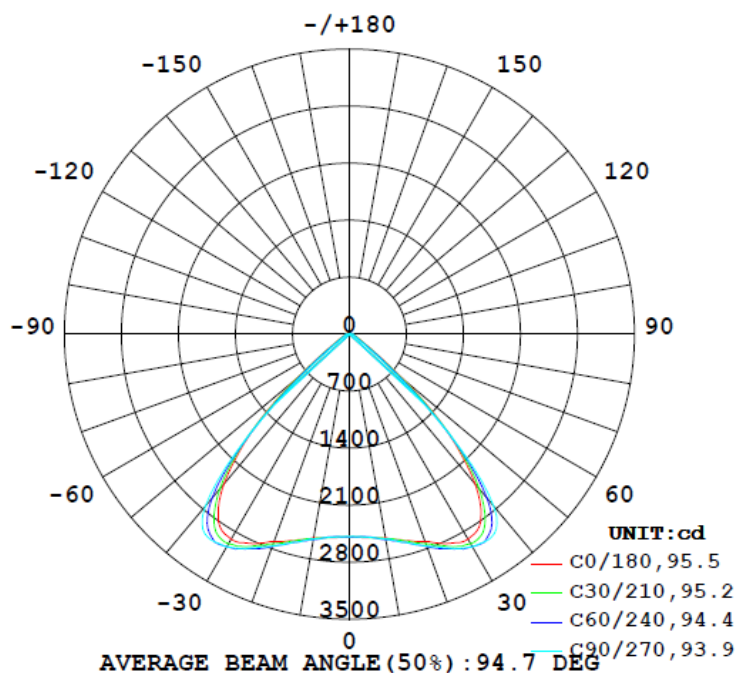
Test Result

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°)
5943	93.8	107.9	68.0	90.2	155.6	99.4%

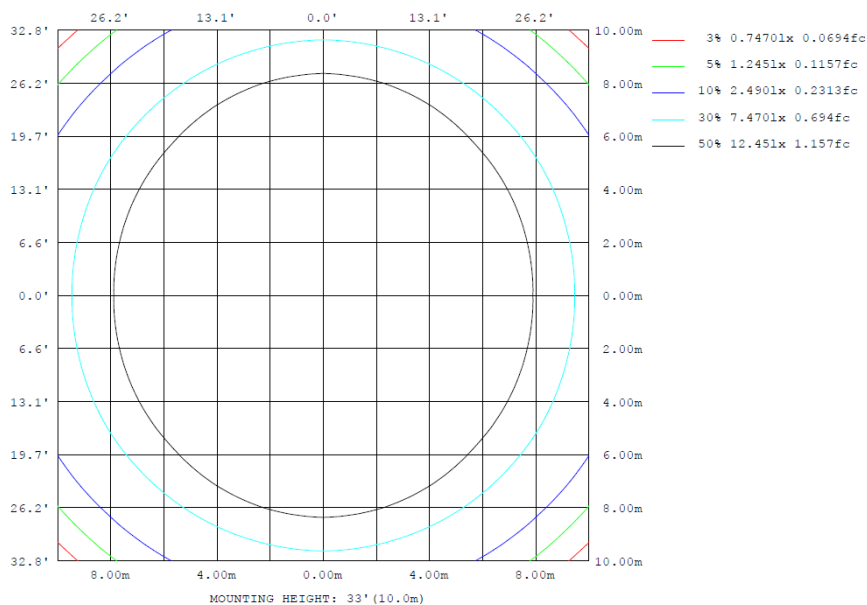
4.2 Goniophotometer Test

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	2539	2551	2554	2551	2539	2551	2554	2551	0- 10	240.3	240.3	4.04,4.04
20	2709	2745	2766	2745	2709	2745	2766	2745	10- 20	751.1	991.5	16.7,16.7
30	2907	2990	3013	2990	2907	2990	3013	2990	20- 30	1335	2326	39.1,39.1
40	2398	2521	2750	2521	2398	2521	2750	2521	30- 40	1803	4129	69.5,69.5
50	858.5	757.9	610.2	757.9	858.5	757.9	610.2	757.9	40- 50	1293	5422	91.2,91.2
60	177.1	152.6	104.5	152.6	177.1	152.6	104.5	152.6	50- 60	300.0	5722	96.3,96.3
70	88.70	74.55	59.44	74.55	88.70	74.55	59.44	74.55	60- 70	102.6	5825	98.98
80	30.30	42.83	37.35	42.83	30.30	42.83	37.35	42.83	70- 80	56.56	5881	99.99
90	2.835	19.72	24.87	19.72	2.835	19.72	24.87	19.72	80- 90	28.28	5909	99.4,99.4
100	2.510	7.851	17.77	7.851	2.510	7.851	17.77	7.851	90-100	11.34	5921	99.6,99.6
110	4.090	1.682	7.045	1.682	4.090	1.682	7.045	1.682	100-110	4.862	5926	99.7,99.7
120	9.012	1.402	1.045	1.402	9.012	1.402	1.045	1.402	110-120	2.377	5928	99.8,99.8
130	9.946	1.869	1.234	1.869	9.946	1.869	1.234	1.869	120-130	2.304	5930	99.8,99.8
140	10.04	3.731	2.755	3.731	10.04	3.731	2.755	3.731	130-140	3.008	5933	99.8,99.8
150	11.52	4.674	3.798	4.674	11.52	4.674	3.798	4.674	140-150	3.452	5937	99.9,99.9
160	10.04	4.765	3.706	4.765	10.04	4.765	3.706	4.765	150-160	2.743	5939	99.9,99.9
170	19.52	7.383	5.607	7.383	19.52	7.383	5.607	7.383	160-170	2.099	5942	100,100
180	20.45	7.664	6.742	7.664	20.45	7.664	6.742	7.664	170-180	0.9329	5943	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	240.32	0-10	240.32	4.04%
10-20	751.13	0-20	991.45	16.69%
20-30	1334.55	0-30	2326.00	39.15%
30-40	1802.90	0-40	4128.90	69.49%
40-50	1293.04	0-50	5421.94	91.25%
50-60	299.97	0-60	5721.91	96.30%
60-70	102.63	0-70	5824.54	98.03%
70-80	56.56	0-80	5881.10	98.98%
80-90	28.28	0-90	5909.38	99.46%
90-100	11.34	0-100	5920.72	99.65%
100-110	4.86	0-110	5925.58	99.73%
110-120	2.38	0-120	5927.96	99.77%
120-130	2.30	0-130	5930.26	99.81%
130-140	3.01	0-140	5933.27	99.86%
140-150	3.45	0-150	5936.72	99.92%
150-160	2.74	0-160	5939.46	99.96%
160-170	2.10	0-170	5941.56	100.00%
170-180	0.94	0-180	5942.50	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	2489	2479	2489	2484	2491	2486	2483	2486	2491	2484	2489	2479	2489	2479	2489	2484	2491	2486	2483
5	2507	2497	2501	2496	2499	2502	2498	2502	2499	2496	2501	2497	2507	2497	2501	2496	2499	2502	2498
10	2539	2535	2551	2551	2563	2557	2554	2557	2563	2551	2551	2535	2539	2535	2551	2551	2563	2557	2554
15	2625	2605	2629	2634	2649	2651	2646	2651	2649	2634	2629	2605	2625	2605	2629	2634	2649	2651	2646
20	2709	2710	2739	2745	2771	2775	2766	2775	2771	2745	2739	2710	2709	2710	2739	2745	2771	2775	2766
25	2836	2843	2876	2879	2906	2909	2894	2909	2906	2879	2876	2843	2836	2843	2876	2879	2906	2909	2894
30	2907	2932	2971	2990	3010	3019	3013	3019	3010	2990	2971	2932	2907	2932	2971	2990	3010	3019	3013
35	2808	2835	2890	2922	2993	3039	3040	3039	2993	2922	2890	2835	2808	2835	2890	2922	2993	3039	3040
40	2398	2420	2478	2521	2629	2711	2750	2711	2629	2521	2478	2420	2398	2420	2478	2521	2629	2711	2750
45	1714	1723	1740	1726	1721	1717	1736	1717	1721	1726	1740	1723	1714	1723	1740	1726	1721	1717	1736
50	858	846	813	758	730	648	610	648	730	758	813	846	858	846	813	758	730	648	610
55	333	335	313	289	269	229	206	229	269	289	313	335	333	335	313	289	269	229	206
60	177	180	166	153	137	118	105	118	137	153	166	180	177	180	166	153	137	118	105
65	122	120	112	103	90.5	77.4	71.2	77.4	90.5	103	112	120	122	120	112	103	90.5	77.4	71.2
70	88.7	86.3	82.3	74.5	66.6	57.8	59.4	57.8	66.6	74.5	82.3	86.3	88.7	86.3	82.3	74.5	66.6	57.8	59.4
75	68.0	55.1	55.9	53.6	49.2	42.6	44.3	42.6	49.2	53.6	55.9	55.1	68.0	55.1	55.9	53.6	49.2	42.6	44.3
80	30.3	31.7	40.1	42.8	45.7	40.9	37.3	40.9	45.7	42.8	40.1	31.7	30.3	31.7	40.1	42.8	45.7	40.9	37.3
85	15.0	18.6	26.1	26.0	26.6	24.5	38.8	24.5	26.6	26.0	26.1	18.6	15.0	18.6	26.1	26.0	26.6	24.5	38.8
90	2.83	8.81	21.3	19.7	16.2	15.8	24.9	15.8	16.2	19.7	21.3	8.81	2.83	8.81	21.3	19.7	16.2	15.8	24.9
95	2.60	3.56	8.71	10.1	11.1	12.1	19.9	12.1	11.1	10.1	8.71	3.56	2.60	3.56	8.71	10.1	11.1	12.1	19.9
100	2.51	2.14	3.66	7.85	11.0	14.0	17.8	14.0	11.0	7.85	3.66	2.14	2.51	2.14	3.66	7.85	11.0	14.0	17.8
105	2.70	1.96	1.87	2.43	4.26	7.21	10.2	7.21	4.26	2.43	1.87	1.96	2.70	1.96	1.87	2.43	4.26	7.21	10.2
110	4.09	1.96	1.78	1.68	2.18	4.65	7.04	4.65	2.18	1.68	1.78	1.96	4.09	1.96	1.78	1.68	2.18	4.65	7.04
115	6.86	2.14	1.69	1.40	1.14	2.20	3.25	2.20	1.14	1.40	1.69	2.14	6.86	2.14	1.69	1.40	1.14	2.20	3.25
120	9.01	3.17	1.69	1.40	1.13	1.04	1.05	1.04	1.13	1.40	1.69	3.17	9.01	3.17	1.69	1.40	1.13	1.04	1.05
125	10.0	4.38	1.69	1.40	1.13	1.04	1.05	1.04	1.13	1.40	1.69	4.38	10.0	4.38	1.69	1.40	1.13	1.04	1.05
130	9.95	5.50	2.34	1.87	1.61	1.42	1.23	1.42	1.61	1.87	2.34	5.50	9.95	5.50	2.34	1.87	1.61	1.42	1.23
135	9.95	6.99	3.28	2.71	2.55	2.46	1.99	2.46	2.55	2.71	3.28	6.99	9.95	6.99	3.28	2.71	2.55	2.46	1.99
140	10.0	7.74	4.12	3.73	3.40	3.22	2.75	3.22	3.40	3.73	4.12	7.74	10.0	7.74	4.12	3.73	3.40	3.22	2.75
145	10.7	8.77	5.15	4.39	4.16	4.08	3.42	4.08	4.16	4.39	5.15	8.77	10.7	8.77	5.15	4.39	4.16	4.08	3.42
150	11.5	9.14	5.43	4.67	4.44	4.46	3.80	4.46	4.44	4.67	5.43	9.14	11.5	9.14	5.43	4.67	4.44	4.46	3.80
155	10.8	9.14	5.62	4.67	4.53	4.46	3.71	4.46	4.53	4.67	5.62	9.14	10.8	9.14	5.62	4.67	4.53	4.46	3.71
160	10.0	8.86	5.52	4.77	4.53	4.55	3.71	4.55	4.53	4.77	5.52	8.86	10.0	8.86	5.52	4.77	4.53	4.55	3.71
165	15.0	12.2	7.02	6.07	5.66	5.59	4.75	5.59	5.66	6.07	7.02	12.2	15.0	12.2	7.02	6.07	5.66	5.59	4.75
170	19.5	14.5	8.43	7.38	6.98	6.53	5.61	6.53	6.98	7.38	8.43	14.5	19.5	14.5	8.43	7.38	6.98	6.53	5.61
175	20.5	14.9	8.99	7.66	7.37	7.11	6.27	7.11	7.37	7.66	8.99	14.9	20.5	14.9	8.99	7.66	7.37	7.11	6.27
180	20.4	15.0	8.99	7.66	7.75	7.21	6.74	7.21	7.75	7.66	8.99	15.0	20.4	15.0	8.99	7.66	7.75	7.21	6.74

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	2486	2491	2484	2489	2479														
5	2502	2499	2496	2501	2497														
10	2557	2563	2551	2551	2535														
15	2651	2649	2634	2629	2605														
20	2775	2771	2745	2739	2710														
25	2909	2906	2879	2876	2843														
30	3019	3010	2990	2971	2932														
35	3039	2993	2922	2890	2835														
40	2711	2629	2521	2478	2420														
45	1717	1721	1726	1740	1723														
50	648	730	758	813	846														
55	229	269	289	313	335														
60	118	137	153	166	180														
65	77.4	90.5	103	112	120														
70	57.8	66.6	74.5	82.3	86.3														
75	42.6	49.2	53.6	55.9	55.1														
80	40.9	45.7	42.8	40.1	31.7														
85	24.5	26.6	26.0	26.1	18.6														
90	15.8	16.2	19.7	21.3	8.81														
95	12.1	11.1	10.1	8.71	3.56														
100	14.0	11.0	7.85	3.66	2.14														
105	7.21	4.26	2.43	1.87	1.96														
110	4.65	2.18	1.68	1.78	1.96														
115	2.20	1.14	1.40	1.69	2.14														
120	1.04	1.13	1.40	1.69	3.17														
125	1.04	1.13	1.40	1.69	4.38														
130	1.42	1.61	1.87	2.34	5.50														
135	2.46	2.55	2.71	3.28	6.99														
140	3.22	3.40	3.73	4.12	7.74														
145	4.08	4.16	4.39	5.15	8.77														
150	4.46	4.44	4.67	5.43	9.14														
155	4.46	4.53	4.67	5.62	9.14														
160	4.55	4.53	4.77	5.52	8.86														
165	5.59	5.66	6.07	7.02	12.2														
170	6.53	6.98	7.38	8.43	14.5														
175	7.11	7.37	7.66	8.99	14.9														
180	7.21	7.75	7.66	8.99	15.0														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @40W4000K	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	0.323	38.2	0.986	9.81

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*****