

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		5895
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	154.3
			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	9.78
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	3465±245	3499
			4 steps	3465±124	
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		76
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%		-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		0.323
(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 @40W3500K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @40W3500K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @40W3500K	-	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 @40W3500K, 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 @40W3500K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

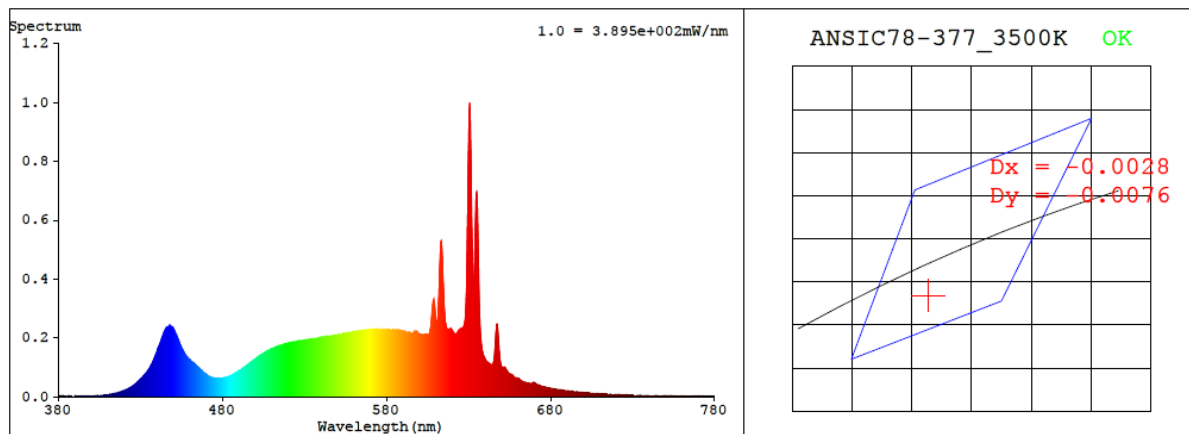
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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
3499	93.9	76	-0.0027	3.7	90	104	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4025$ $y = 0.3832$ / $u' = 0.2370$ $v' = 0.5077$ ($duv = -2.73e-03$)

CCT= 3499K Prcp WL: $L_d = 582.2\text{nm}$ Purity=35.8%

Peak WL: $L_p = 631\text{nm}$ FWHM: $\approx 3.5\text{nm}$ Ratio: R=22.6% G=74.2% B=3.1%

Render Index: $R_a = 93.9$ AvgR = 91.6 TM30: $R_f = 90$ $R_g = 104$

EEL: 0.08847 A++ Highest

R1 =97 R2 =95 R3 =91 R4 =93 R5 =96 R6 =94 R7 =94

R8 =91 R9 =76 R10=86 R11=93 R12=81 R13=96 R14=94 R15=95

4.1 Integrating Sphere Test

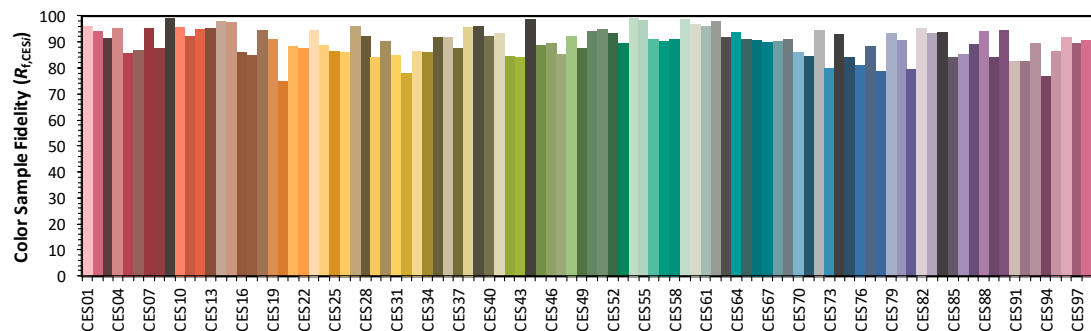
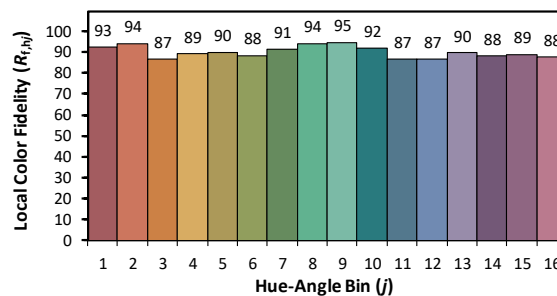
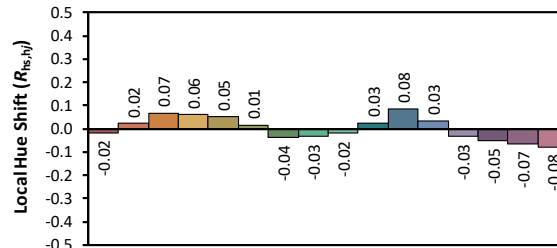
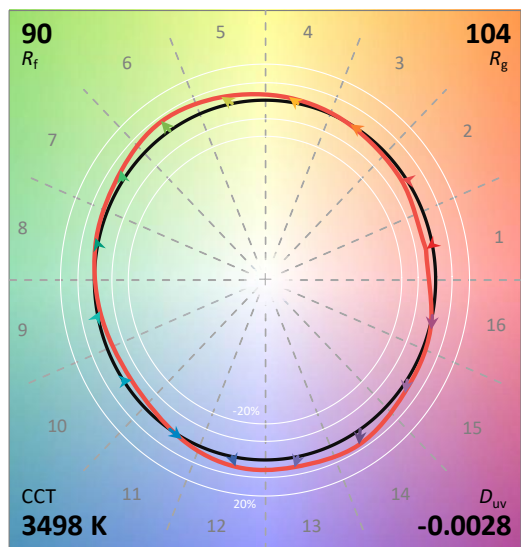
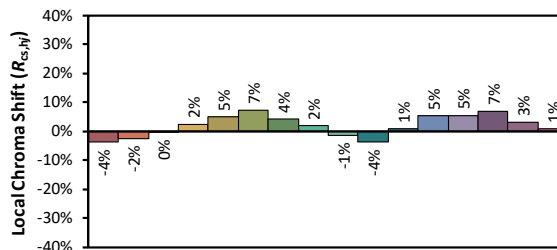
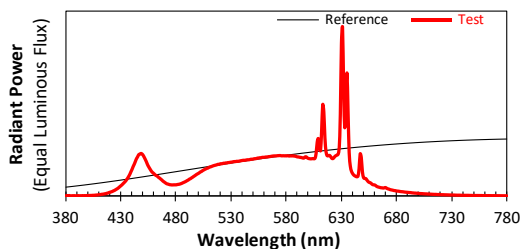
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @40W3500K



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

x 0.4025
 y 0.3831
 u' 0.2371
 v' 0.5076

CIE 13.3-1995
(CRI)

R_a 94
 R_g 77

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	2.38E-04	514	1.72E-04	581	2.29E-04	648	2.18E-04	715	9.20E-06
381	2.70E-06	448	2.41E-04	515	1.74E-04	582	2.28E-04	649	1.39E-04	716	9.10E-06
382	7.00E-07	449	2.39E-04	516	1.76E-04	583	2.27E-04	650	1.05E-04	717	8.50E-06
383	2.70E-06	450	2.31E-04	517	1.77E-04	584	2.28E-04	651	9.93E-05	718	8.40E-06
384	1.10E-06	451	2.20E-04	518	1.80E-04	585	2.27E-04	652	9.94E-05	719	8.20E-06
385	1.10E-06	452	2.08E-04	519	1.79E-04	586	2.28E-04	653	9.17E-05	720	7.60E-06
386	1.70E-06	453	1.94E-04	520	1.83E-04	587	2.27E-04	654	8.33E-05	721	7.40E-06
387	1.60E-06	454	1.79E-04	521	1.83E-04	588	2.26E-04	655	7.80E-05	722	7.40E-06
388	1.70E-06	455	1.67E-04	522	1.84E-04	589	2.24E-04	656	7.57E-05	723	7.10E-06
389	9.00E-07	456	1.56E-04	523	1.86E-04	590	2.22E-04	657	7.15E-05	724	6.80E-06
390	1.80E-06	457	1.46E-04	524	1.86E-04	591	2.22E-04	658	6.59E-05	725	6.70E-06
391	2.10E-06	458	1.37E-04	525	1.88E-04	592	2.20E-04	659	6.36E-05	726	6.50E-06
392	1.40E-06	459	1.32E-04	526	1.88E-04	593	2.19E-04	660	6.29E-05	727	6.30E-06
393	1.60E-06	460	1.26E-04	527	1.90E-04	594	2.18E-04	661	5.96E-05	728	6.00E-06
394	1.40E-06	461	1.20E-04	528	1.90E-04	595	2.16E-04	662	5.45E-05	729	5.80E-06
395	2.20E-06	462	1.16E-04	529	1.91E-04	596	2.16E-04	663	5.19E-05	730	5.70E-06
396	1.60E-06	463	1.12E-04	530	1.92E-04	597	2.22E-04	664	5.01E-05	731	5.40E-06
397	2.10E-06	464	1.06E-04	531	1.93E-04	598	2.22E-04	665	4.83E-05	732	5.60E-06
398	1.90E-06	465	1.02E-04	532	1.95E-04	599	2.17E-04	666	4.68E-05	733	5.10E-06
399	2.50E-06	466	9.61E-05	533	1.95E-04	600	2.13E-04	667	4.63E-05	734	4.90E-06
400	2.30E-06	467	9.09E-05	534	1.96E-04	601	2.12E-04	668	4.51E-05	735	4.60E-06
401	2.80E-06	468	8.48E-05	535	1.97E-04	602	2.11E-04	669	4.67E-05	736	4.60E-06
402	3.30E-06	469	8.02E-05	536	1.97E-04	603	2.11E-04	670	4.80E-05	737	4.70E-06
403	3.20E-06	470	7.59E-05	537	1.98E-04	604	2.12E-04	671	4.42E-05	738	4.40E-06
404	3.90E-06	471	7.13E-05	538	1.99E-04	605	2.11E-04	672	4.10E-05	739	4.10E-06
405	4.00E-06	472	6.85E-05	539	2.01E-04	606	2.14E-04	673	3.94E-05	740	4.10E-06
406	4.40E-06	473	6.70E-05	540	2.02E-04	607	2.42E-04	674	3.66E-05	741	3.90E-06
407	5.10E-06	474	6.46E-05	541	2.03E-04	608	3.05E-04	675	3.50E-05	742	3.80E-06
408	5.70E-06	475	6.38E-05	542	2.03E-04	609	3.26E-04	676	3.38E-05	743	3.70E-06
409	6.30E-06	476	6.29E-05	543	2.03E-04	610	2.71E-04	677	3.23E-05	744	3.70E-06
410	7.30E-06	477	6.31E-05	544	2.05E-04	611	2.58E-04	678	3.08E-05	745	3.70E-06
411	7.70E-06	478	6.34E-05	545	2.06E-04	612	3.67E-04	679	3.02E-05	746	3.50E-06
412	9.30E-06	479	6.35E-05	546	2.06E-04	613	5.18E-04	680	2.85E-05	747	3.30E-06
413	1.01E-05	480	6.36E-05	547	2.07E-04	614	4.77E-04	681	2.78E-05	748	3.20E-06
414	1.08E-05	481	6.50E-05	548	2.09E-04	615	3.31E-04	682	2.72E-05	749	3.00E-06
415	1.23E-05	482	6.61E-05	549	2.09E-04	616	2.52E-04	683	2.59E-05	750	3.00E-06
416	1.33E-05	483	6.72E-05	550	2.10E-04	617	2.29E-04	684	2.50E-05	751	2.90E-06
417	1.53E-05	484	6.93E-05	551	2.12E-04	618	2.28E-04	685	2.44E-05	752	2.70E-06
418	1.68E-05	485	7.15E-05	552	2.12E-04	619	2.31E-04	686	2.38E-05	753	2.90E-06
419	1.94E-05	486	7.47E-05	553	2.13E-04	620	2.25E-04	687	2.28E-05	754	2.70E-06
420	2.14E-05	487	7.75E-05	554	2.15E-04	621	2.16E-04	688	2.19E-05	755	2.80E-06
421	2.35E-05	488	8.03E-05	555	2.16E-04	622	2.12E-04	689	2.14E-05	756	2.50E-06
422	2.56E-05	489	8.37E-05	556	2.17E-04	623	2.16E-04	690	2.08E-05	757	2.70E-06
423	2.89E-05	490	8.75E-05	557	2.17E-04	624	2.24E-04	691	2.01E-05	758	2.40E-06
424	3.15E-05	491	9.08E-05	558	2.19E-04	625	2.29E-04	692	1.96E-05	759	2.20E-06
425	3.54E-05	492	9.56E-05	559	2.20E-04	626	2.32E-04	693	1.91E-05	760	2.20E-06
426	3.93E-05	493	9.84E-05	560	2.20E-04	627	2.37E-04	694	1.79E-05	761	2.40E-06
427	4.31E-05	494	1.03E-04	561	2.21E-04	628	2.73E-04	695	1.75E-05	762	1.90E-06
428	4.82E-05	495	1.07E-04	562	2.22E-04	629	4.64E-04	696	1.67E-05	763	2.20E-06
429	5.38E-05	496	1.12E-04	563	2.22E-04	630	8.65E-04	697	1.65E-05	764	2.10E-06
430	5.90E-05	497	1.15E-04	564	2.23E-04	631	9.57E-04	698	1.58E-05	765	2.00E-06
431	6.45E-05	498	1.20E-04	565	2.24E-04	632	6.10E-04	699	1.55E-05	766	1.90E-06
432	7.10E-05	499	1.24E-04	566	2.25E-04	633	3.87E-04	700	1.49E-05	767	1.80E-06
433	7.72E-05	500	1.28E-04	567	2.26E-04	634	5.49E-04	701	1.43E-05	768	2.00E-06
434	8.39E-05	501	1.32E-04	568	2.27E-04	635	6.98E-04	702	1.37E-05	769	1.80E-06
435	9.22E-05	502	1.37E-04	569	2.28E-04	636	4.74E-04	703	1.36E-05	770	1.60E-06
436	1.01E-04	503	1.39E-04	570	2.28E-04	637	2.48E-04	704	1.30E-05	771	1.80E-06
437	1.12E-04	504	1.44E-04	571	2.28E-04	638	1.72E-04	705	1.26E-05	772	1.60E-06
438	1.24E-04	505	1.48E-04	572	2.29E-04	639	1.42E-04	706	1.21E-05	773	1.80E-06
439	1.38E-04	506	1.51E-04	573	2.29E-04	640	1.29E-04	707	1.20E-05	774	1.50E-06
440	1.52E-04	507	1.54E-04	574	2.30E-04	641	1.20E-04	708	1.15E-05	775	1.50E-06
441	1.67E-04	508	1.57E-04	575	2.29E-04	642	1.15E-04	709	1.11E-05	776	1.40E-06
442	1.81E-04	509	1.59E-04	576	2.28E-04	643	1.11E-04	710	1.07E-05	777	1.40E-06
443	1.96E-04	510	1.63E-04	577	2.29E-04	644	1.09E-04	711	1.05E-05	778	1.30E-06
444	2.12E-04	511	1.65E-04	578	2.28E-04	645	1.12E-04	712	1.00E-05	779	1.30E-06
445	2.22E-04	512	1.67E-04	579	2.28E-04	646	1.55E-04	713	9.70E-06	780	1.30E-06
446	2.34E-04	513	1.70E-04	580	2.28E-04	647	2.39E-04	714	9.20E-06	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @40W3500K	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

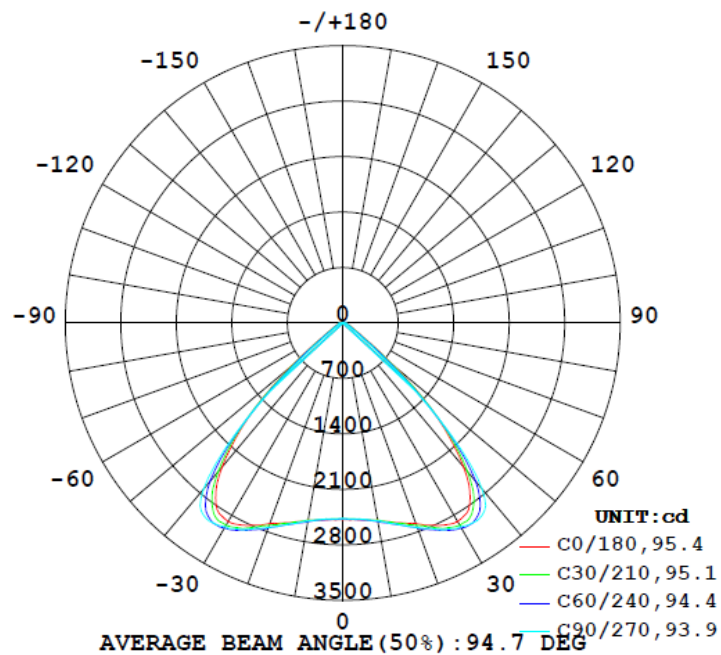
Test Result

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°)
5895	93.7	107.9	68.0	90.3	154.3	99.4%

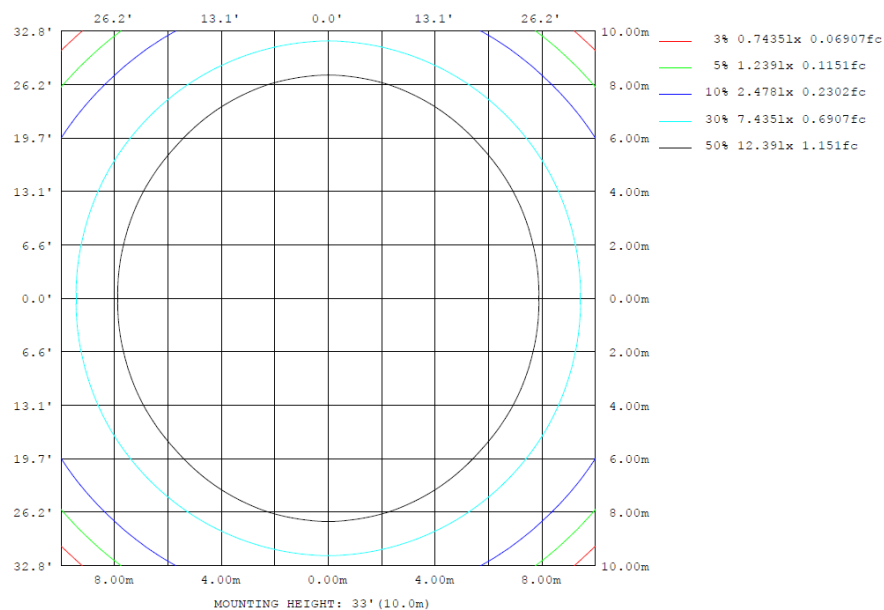
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

y	C0	C45	C90	C135	C180	C225	C270	C315	y	zone	total	\$lum, lamp
10	2526	2534	2535	2534	2526	2534	2535	2534	0- 10	239.0	239.0	4.06,4.06
20	2694	2736	2743	2736	2694	2736	2743	2736	10- 20	746.5	985.5	16.7,16.7
30	2891	2970	2969	2970	2891	2970	2969	2970	20- 30	1326	2311	39.2,39.2
40	2372	2501	2731	2501	2372	2501	2731	2501	30- 40	1790	4101	69.6,69.6
50	844.5	745.2	604.7	745.2	844.5	745.2	604.7	745.2	40- 50	1281	5381	91.3,91.3
60	175.4	151.1	103.2	151.1	175.4	151.1	103.2	151.1	50- 60	295.4	5677	96.3,96.3
70	87.46	73.91	58.72	73.91	87.46	73.91	58.72	73.91	60- 70	101.4	5778	98,98
80	29.74	42.22	36.73	42.22	29.74	42.22	36.73	42.22	70- 80	55.76	5834	99,99
90	2.910	19.32	24.42	19.32	2.910	19.32	24.42	19.32	80- 90	27.82	5862	99.4,99.4
100	2.516	7.787	17.69	7.787	2.516	7.787	17.69	7.787	90-100	11.20	5873	99.6,99.6
110	4.180	1.596	6.964	1.596	4.180	1.596	6.964	1.596	100-110	4.806	5878	99.7,99.7
120	8.939	1.406	1.047	1.406	8.939	1.406	1.047	1.406	110-120	2.375	5880	99.8,99.8
130	9.879	1.780	1.330	1.780	9.879	1.780	1.330	1.780	120-130	2.304	5882	99.8,99.8
140	9.878	3.654	2.664	3.654	9.878	3.654	2.664	3.654	130-140	2.992	5885	99.8,99.8
150	11.46	4.688	3.711	4.688	11.46	4.688	3.711	4.688	140-150	3.441	5889	99.9,99.9
160	10.06	4.780	3.900	4.780	10.06	4.780	3.900	4.780	150-160	2.736	5891	99.9,99.9
170	19.64	7.219	5.613	7.219	19.64	7.219	5.613	7.219	160-170	2.088	5894	100,100
180	20.68	7.781	6.660	7.781	20.68	7.781	6.660	7.781	170-180	0.9275	5895	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	239.03	0-10	239.03	4.06%
10-20	746.48	0-20	985.51	16.72%
20-30	1325.61	0-30	2311.12	39.21%
30-40	1789.52	0-40	4100.64	69.58%
40-50	1280.66	0-50	5381.30	91.31%
50-60	295.36	0-60	5676.66	96.32%
60-70	101.41	0-70	5778.07	98.04%
70-80	55.76	0-80	5833.83	98.99%
80-90	27.82	0-90	5861.65	99.46%
90-100	11.20	0-100	5872.85	99.65%
100-110	4.81	0-110	5877.66	99.73%
110-120	2.37	0-120	5880.03	99.77%
120-130	2.30	0-130	5882.33	99.81%
130-140	2.99	0-140	5885.32	99.86%
140-150	3.44	0-150	5888.76	99.92%
150-160	2.74	0-160	5891.50	99.96%
160-170	2.09	0-170	5893.59	100.00%
170-180	0.93	0-180	5894.52	100.02%

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) y	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2478	2462	2467	2475	2475	2477	2469	2477	2475	2475	2467	2462	2478	2462	2467	2475	2475	2477	2469
5	2496	2484	2483	2492	2492	2490	2482	2490	2492	2492	2483	2484	2496	2484	2483	2492	2492	2490	2482
10	2526	2525	2525	2534	2547	2544	2535	2544	2547	2534	2525	2525	2526	2525	2525	2534	2547	2544	2535
15	2609	2593	2617	2618	2633	2633	2630	2633	2633	2618	2617	2593	2609	2593	2617	2618	2633	2633	2630
20	2694	2699	2716	2736	2750	2753	2743	2753	2750	2736	2716	2699	2694	2699	2716	2736	2750	2753	2743
25	2818	2832	2853	2862	2885	2889	2871	2889	2885	2862	2853	2832	2818	2832	2853	2862	2885	2889	2871
30	2891	2920	2948	2970	2987	2998	2969	2998	2987	2970	2948	2920	2891	2920	2948	2970	2987	2998	2969
35	2792	2817	2864	2908	2967	3011	3008	3011	2967	2908	2864	2817	2792	2817	2864	2908	2967	3011	3008
40	2372	2402	2449	2501	2607	2697	2731	2697	2607	2501	2449	2402	2372	2402	2449	2501	2607	2697	2731
45	1690	1702	1716	1709	1711	1709	1723	1709	1711	1709	1716	1702	1690	1702	1716	1709	1711	1709	1723
50	844	832	797	745	724	646	605	646	724	745	797	832	844	832	797	745	724	646	605
55	326	328	307	284	264	226	203	226	264	284	307	328	326	307	284	264	226	203	326
60	175	178	163	151	135	117	103	117	135	151	163	178	175	163	151	135	117	103	175
65	121	119	111	102	89.7	76.5	70.3	76.5	89.7	102	111	119	121	119	111	102	89.7	76.5	70.3
70	87.5	85.5	81.2	73.9	65.9	56.9	58.7	56.9	65.9	73.9	81.2	85.5	87.5	85.5	81.2	73.9	65.9	56.9	58.7
75	67.0	54.7	54.7	52.8	48.5	42.2	43.8	42.2	48.5	52.8	54.7	54.7	67.0	54.7	54.7	52.8	48.5	42.2	43.8
80	29.7	31.0	39.3	42.2	44.8	40.4	36.7	40.4	44.8	42.2	39.3	31.0	29.7	31.0	39.3	42.2	44.8	40.4	36.7
85	14.8	18.5	25.6	25.5	26.0	23.9	38.4	23.9	26.0	25.5	25.6	18.5	14.8	18.5	25.6	25.5	26.0	23.9	38.4
90	2.91	8.83	20.9	19.3	15.9	15.6	24.4	15.6	15.9	19.3	20.9	8.83	2.91	8.83	20.9	19.3	15.9	15.6	24.4
95	2.61	3.48	8.54	9.95	11.0	12.0	19.5	12.0	11.0	9.95	8.54	3.48	2.61	3.48	8.54	9.95	11.0	12.0	19.5
100	2.52	2.06	3.57	7.79	11.0	14.0	17.7	14.0	11.0	7.79	3.57	2.06	2.52	2.06	3.57	7.79	11.0	14.0	17.7
105	2.52	1.97	1.88	2.35	4.17	7.06	10.2	7.06	4.17	2.35	1.88	1.97	2.52	1.97	1.88	2.35	4.17	7.06	10.2
110	4.18	1.97	1.69	1.60	2.18	4.57	6.96	4.57	2.18	1.60	1.69	1.97	4.18	1.97	1.69	1.60	2.18	4.57	6.96
115	6.97	2.24	1.69	1.41	1.32	2.11	3.35	2.11	1.32	1.41	1.69	2.24	6.97	2.24	1.69	1.41	1.32	2.11	3.35
120	8.94	3.08	1.69	1.41	1.14	1.14	1.05	1.14	1.14	1.41	1.69	3.08	8.94	3.08	1.69	1.41	1.14	1.14	1.05
125	10.1	4.21	1.78	1.41	1.14	1.14	1.05	1.14	1.14	1.41	1.78	4.21	10.1	4.21	1.78	1.41	1.14	1.14	1.05
130	9.88	5.51	2.34	1.78	1.60	1.33	1.33	1.60	1.78	2.34	5.51	9.88	5.51	2.34	1.78	1.60	1.33	1.33	1.60
135	9.88	6.82	3.28	2.62	2.36	2.37	1.99	2.37	2.62	3.28	6.82	9.88	6.82	3.28	2.62	2.36	2.37	1.99	2.37
140	9.88	7.76	4.12	3.65	3.40	3.33	2.66	3.33	3.40	3.65	4.12	7.76	9.88	7.76	4.12	3.65	3.40	3.33	2.66
145	10.6	8.70	5.06	4.40	4.16	4.09	3.42	4.09	4.16	4.40	5.06	8.70	10.6	8.70	5.06	4.40	4.16	4.09	3.42
150	11.5	9.08	5.43	4.69	4.45	4.37	3.71	4.37	4.45	4.69	5.43	9.08	11.5	9.08	5.43	4.69	4.45	4.37	3.71
155	10.7	9.08	5.43	4.69	4.54	4.47	3.81	4.47	4.54	4.69	5.43	9.08	10.7	9.08	5.43	4.69	4.54	4.47	3.81
160	10.1	8.80	5.43	4.78	4.63	4.47	3.90	4.47	4.63	4.78	5.43	8.80	10.1	8.80	5.43	4.78	4.63	4.47	3.90
165	14.9	12.2	6.92	6.00	5.67	5.61	4.75	5.61	5.67	6.00	6.92	12.2	14.9	12.2	6.92	6.00	5.67	5.61	4.75
170	19.6	14.4	8.42	7.22	6.81	6.46	5.61	6.46	6.81	7.22	8.42	14.4	19.6	14.4	8.42	7.22	6.81	6.46	5.61
175	20.4	15.0	8.89	7.78	7.29	7.23	6.27	7.23	7.29	7.78	8.89	15.0	20.4	15.0	8.89	7.78	7.29	7.23	6.27
180	20.7	14.9	8.80	7.78	7.29	7.23	6.66	7.23	7.29	7.78	8.80	14.9	20.7	14.9	8.80	7.78	7.29	7.23	6.66

Table--2

UNIT: cd

C (DEG) y	285	300	315	330	345														
0	2477	2475	2475	2467	2462														
5	2490	2492	2492	2483	2484														
10	2544	2547	2534	2525	2525														
15	2633	2633	2618	2617	2593														
20	2753	2750	2736	2716	2699														
25	2889	2885	2862	2853	2832														
30	2998	2987	2970	2948	2920														
35	3011	2967	2908	2864	2817														
40	2697	2607	2501	2449	2402														
45	1709	1711	1709	1716	1702														
50	646	724	745	797	832														
55	226	264	284	307	328														
60	117	135	151	163	178														
65	76.5	89.7	102	111	119														
70	56.9	65.9	73.9	81.2	85.5														
75	42.2	48.5	52.8	54.7	54.7														
80	40.4	44.8	42.2	39.3	31.0														
85	23.9	26.0	25.5	25.6	18.5														
90	15.6	15.9	19.3	20.9	8.83														
95	12.0	11.0	9.95	8.54	3.48														
100	14.0	11.0	7.79	3.57	2.06														
105	7.06	4.17	2.35	1.88	1.97														
110	4.57	2.18	1.60	1.69	1.97														
115	2.11	1.32	1.41	1.69	2.24														
120	1.14	1.14	1.41	1.69	3.08														
125	1.14	1.14	1.41	1.78	4.21														
130	1.33	1.60	1.78	2.34	5.51														
135	2.37	2.36	2.62	3.28	6.82														
140	3.33	3.40	3.65	4.12	7.76														
145	4.09	4.16	4.40	5.06	8.70														
150	4.37	4.45	4.69	5.43	9.08														
155	4.47	4.54	4.69	5.43	9.08														
160	4.47	4.63	4.78	5.43	8.80														
165	5.61	5.67	6.00	6.92	12.2														
170	6.46	6.81	7.22	8.42	14.4														
175	7.23	7.29	7.78	8.89	15.0														
180	7.23	7.29	7.78	8.80	14.9														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @40W3500K	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	9.78

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*****