

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		8159
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	140.7
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		58.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.56
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	3465±245	3500
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.7
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		75
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		0.487
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		58.0
(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 @60W3500K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @60W3500K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @60W3500K	-	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 @60W3500K, 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 @60W3500K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

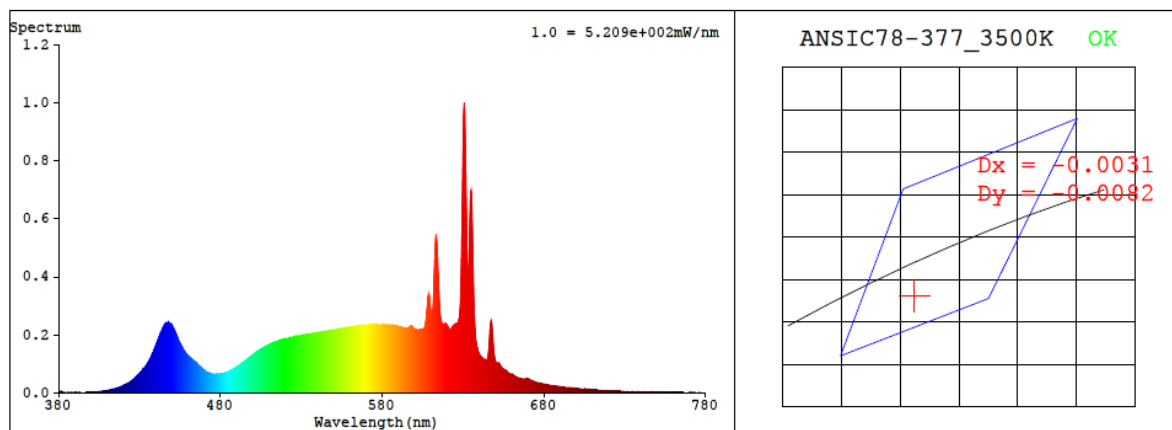
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.487	58.0	0.993

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3500	93.7	75	-0.0030	4.0	90	104	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4023$ $y = 0.3826$ / $u' = 0.2371$ $v' = 0.5074$ ($duv = -2.96e-03$)

CCT= 3500K Prcp WL: $L_d = 582.3\text{nm}$ Purity=35.5%

Peak WL: $L_p = 631\text{nm}$ FWHM: $\approx 3.6\text{nm}$ Ratio: R=22.6% G=74.3% B=3.1%

Render Index: $R_a = 93.7$ AvgR = 91.4 TM30: Rf=90 Rg=104

EEL: 0.09725 A++ Highest

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

R8 =91 R9 =75 R10=86 R11=93 R12=82 R13=96 R14=94 R15=95

4.1 Integrating Sphere Test

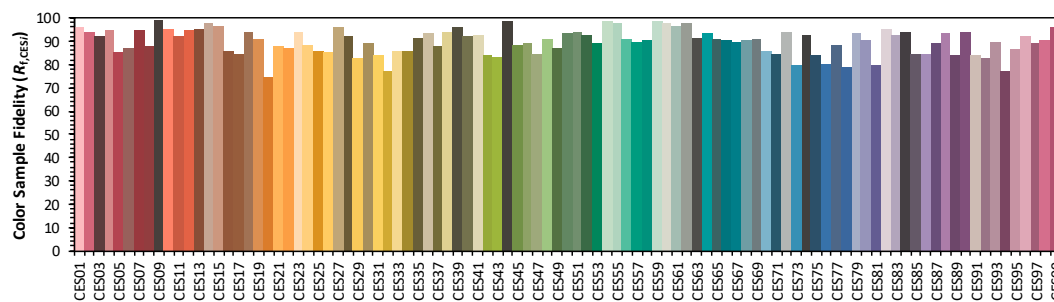
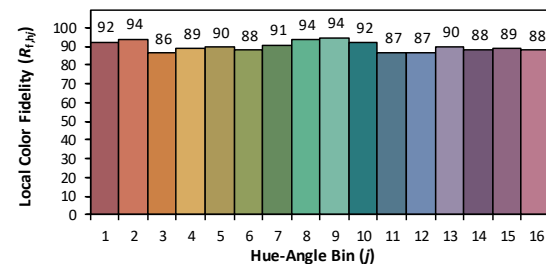
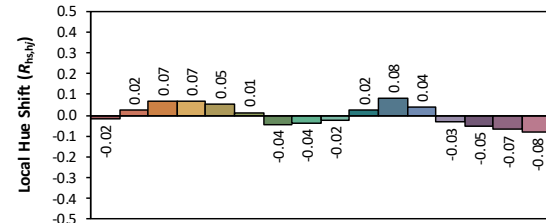
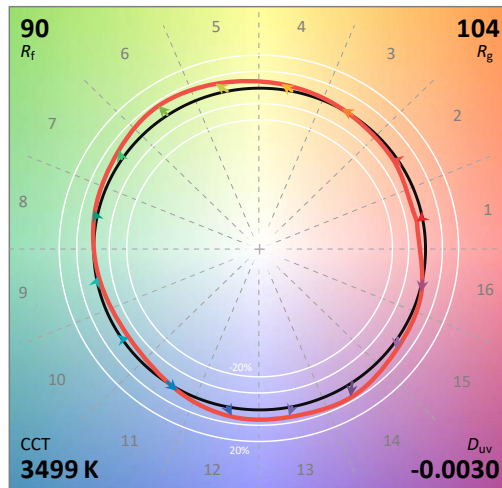
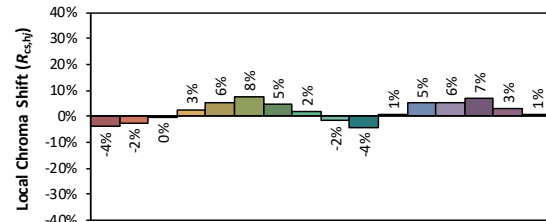
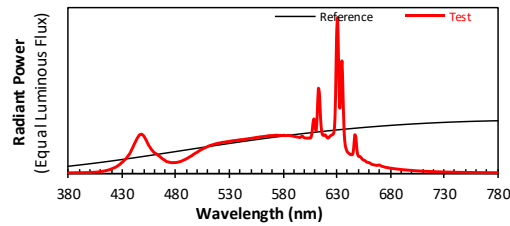
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @60W3500K



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

x 0.4022
 y 0.3824
 u' 0.2372
 v' 0.5073

CIE 13.3-1995
(CRI)

R_a 94
 R_g 76

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	2.39E-04	514	1.76E-04	581	2.36E-04	648	2.22E-04	715	9.60E-06
381	1.20E-06	448	2.43E-04	515	1.77E-04	582	2.34E-04	649	1.44E-04	716	9.30E-06
382	4.00E-07	449	2.38E-04	516	1.80E-04	583	2.33E-04	650	1.09E-04	717	9.00E-06
383	1.70E-06	450	2.32E-04	517	1.82E-04	584	2.35E-04	651	1.02E-04	718	8.70E-06
384	8.00E-07	451	2.21E-04	518	1.83E-04	585	2.34E-04	652	1.03E-04	719	8.40E-06
385	1.20E-06	452	2.09E-04	519	1.85E-04	586	2.34E-04	653	9.48E-05	720	8.20E-06
386	1.90E-06	453	1.96E-04	520	1.87E-04	587	2.33E-04	654	8.60E-05	721	8.10E-06
387	1.60E-06	454	1.81E-04	521	1.87E-04	588	2.32E-04	655	8.13E-05	722	7.70E-06
388	1.60E-06	455	1.70E-04	522	1.88E-04	589	2.31E-04	656	7.89E-05	723	7.30E-06
389	1.30E-06	456	1.60E-04	523	1.91E-04	590	2.29E-04	657	7.40E-05	724	7.10E-06
390	2.00E-06	457	1.49E-04	524	1.91E-04	591	2.28E-04	658	6.84E-05	725	7.20E-06
391	2.00E-06	458	1.41E-04	525	1.93E-04	592	2.26E-04	659	6.58E-05	726	6.80E-06
392	1.80E-06	459	1.33E-04	526	1.93E-04	593	2.25E-04	660	6.53E-05	727	6.70E-06
393	1.50E-06	460	1.27E-04	527	1.95E-04	594	2.24E-04	661	6.19E-05	728	6.30E-06
394	1.90E-06	461	1.22E-04	528	1.96E-04	595	2.22E-04	662	5.74E-05	729	6.10E-06
395	2.10E-06	462	1.18E-04	529	1.95E-04	596	2.22E-04	663	5.38E-05	730	5.90E-06
396	1.90E-06	463	1.13E-04	530	1.98E-04	597	2.27E-04	664	5.18E-05	731	5.80E-06
397	2.50E-06	464	1.08E-04	531	1.99E-04	598	2.30E-04	665	5.03E-05	732	5.50E-06
398	2.40E-06	465	1.03E-04	532	1.99E-04	599	2.24E-04	666	4.89E-05	733	5.40E-06
399	2.60E-06	466	9.71E-05	533	2.02E-04	600	2.19E-04	667	4.76E-05	734	5.50E-06
400	2.80E-06	467	9.20E-05	534	2.01E-04	601	2.19E-04	668	4.70E-05	735	5.10E-06
401	3.40E-06	468	8.61E-05	535	2.03E-04	602	2.18E-04	669	4.91E-05	736	5.00E-06
402	3.60E-06	469	8.24E-05	536	2.03E-04	603	2.18E-04	670	4.98E-05	737	4.90E-06
403	3.90E-06	470	7.79E-05	537	2.05E-04	604	2.18E-04	671	4.58E-05	738	4.80E-06
404	4.00E-06	471	7.26E-05	538	2.05E-04	605	2.18E-04	672	4.26E-05	739	4.60E-06
405	4.60E-06	472	7.02E-05	539	2.07E-04	606	2.21E-04	673	4.02E-05	740	4.20E-06
406	5.10E-06	473	6.89E-05	540	2.07E-04	607	2.49E-04	674	3.84E-05	741	4.40E-06
407	5.80E-06	474	6.64E-05	541	2.09E-04	608	3.12E-04	675	3.64E-05	742	4.10E-06
408	6.80E-06	475	6.53E-05	542	2.08E-04	609	3.37E-04	676	3.48E-05	743	4.00E-06
409	7.60E-06	476	6.46E-05	543	2.09E-04	610	2.83E-04	677	3.38E-05	744	3.90E-06
410	8.30E-06	477	6.41E-05	544	2.10E-04	611	2.67E-04	678	3.27E-05	745	3.80E-06
411	9.00E-06	478	6.50E-05	545	2.12E-04	612	3.72E-04	679	3.14E-05	746	3.50E-06
412	1.07E-05	479	6.51E-05	546	2.12E-04	613	5.27E-04	680	3.02E-05	747	3.60E-06
413	1.18E-05	480	6.48E-05	547	2.13E-04	614	4.95E-04	681	2.88E-05	748	3.30E-06
414	1.37E-05	481	6.61E-05	548	2.15E-04	615	3.49E-04	682	2.81E-05	749	3.40E-06
415	1.47E-05	482	6.73E-05	549	2.15E-04	616	2.64E-04	683	2.72E-05	750	3.20E-06
416	1.65E-05	483	6.92E-05	550	2.16E-04	617	2.38E-04	684	2.63E-05	751	3.10E-06
417	1.79E-05	484	7.10E-05	551	2.17E-04	618	2.35E-04	685	2.55E-05	752	3.10E-06
418	2.04E-05	485	7.32E-05	552	2.18E-04	619	2.39E-04	686	2.46E-05	753	2.90E-06
419	2.25E-05	486	7.60E-05	553	2.19E-04	620	2.33E-04	687	2.38E-05	754	2.90E-06
420	2.51E-05	487	7.96E-05	554	2.21E-04	621	2.23E-04	688	2.33E-05	755	3.00E-06
421	2.80E-05	488	8.23E-05	555	2.22E-04	622	2.18E-04	689	2.25E-05	756	2.60E-06
422	3.06E-05	489	8.52E-05	556	2.22E-04	623	2.23E-04	690	2.16E-05	757	2.60E-06
423	3.37E-05	490	8.90E-05	557	2.23E-04	624	2.31E-04	691	2.08E-05	758	2.60E-06
424	3.64E-05	491	9.25E-05	558	2.25E-04	625	2.35E-04	692	2.02E-05	759	2.40E-06
425	4.08E-05	492	9.67E-05	559	2.26E-04	626	2.39E-04	693	1.96E-05	760	2.40E-06
426	4.54E-05	493	1.01E-04	560	2.27E-04	627	2.44E-04	694	1.90E-05	761	2.40E-06
427	4.99E-05	494	1.05E-04	561	2.27E-04	628	2.79E-04	695	1.85E-05	762	2.30E-06
428	5.50E-05	495	1.08E-04	562	2.28E-04	629	4.62E-04	696	1.78E-05	763	2.30E-06
429	6.14E-05	496	1.14E-04	563	2.29E-04	630	8.56E-04	697	1.72E-05	764	2.30E-06
430	6.64E-05	497	1.17E-04	564	2.30E-04	631	9.68E-04	698	1.67E-05	765	2.10E-06
431	7.23E-05	498	1.23E-04	565	2.31E-04	632	6.38E-04	699	1.63E-05	766	2.00E-06
432	8.02E-05	499	1.26E-04	566	2.32E-04	633	4.05E-04	700	1.56E-05	767	2.00E-06
433	8.54E-05	500	1.30E-04	567	2.33E-04	634	5.49E-04	701	1.52E-05	768	1.90E-06
434	9.34E-05	501	1.35E-04	568	2.33E-04	635	7.01E-04	702	1.45E-05	769	2.00E-06
435	1.02E-04	502	1.39E-04	569	2.34E-04	636	4.91E-04	703	1.41E-05	770	1.80E-06
436	1.12E-04	503	1.43E-04	570	2.33E-04	637	2.63E-04	704	1.36E-05	771	1.50E-06
437	1.21E-04	504	1.47E-04	571	2.34E-04	638	1.79E-04	705	1.33E-05	772	1.80E-06
438	1.34E-04	505	1.50E-04	572	2.35E-04	639	1.49E-04	706	1.29E-05	773	1.80E-06
439	1.48E-04	506	1.54E-04	573	2.35E-04	640	1.33E-04	707	1.24E-05	774	1.60E-06
440	1.62E-04	507	1.56E-04	574	2.36E-04	641	1.25E-04	708	1.21E-05	775	1.50E-06
441	1.77E-04	508	1.60E-04	575	2.35E-04	642	1.20E-04	709	1.14E-05	776	1.70E-06
442	1.90E-04	509	1.63E-04	576	2.34E-04	643	1.15E-04	710	1.14E-05	777	1.40E-06
443	2.04E-04	510	1.66E-04	577	2.35E-04	644	1.14E-04	711	1.10E-05	778	1.50E-06
444	2.18E-04	511	1.69E-04	578	2.34E-04	645	1.16E-04	712	1.05E-05	779	1.50E-06
445	2.26E-04	512	1.72E-04	579	2.34E-04	646	1.57E-04	713	1.03E-05	780	1.50E-06
446	2.38E-04	513	1.73E-04	580	2.34E-04	647	2.38E-04	714	1.00E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @60W3500K	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	0.487	58.0	0.993
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

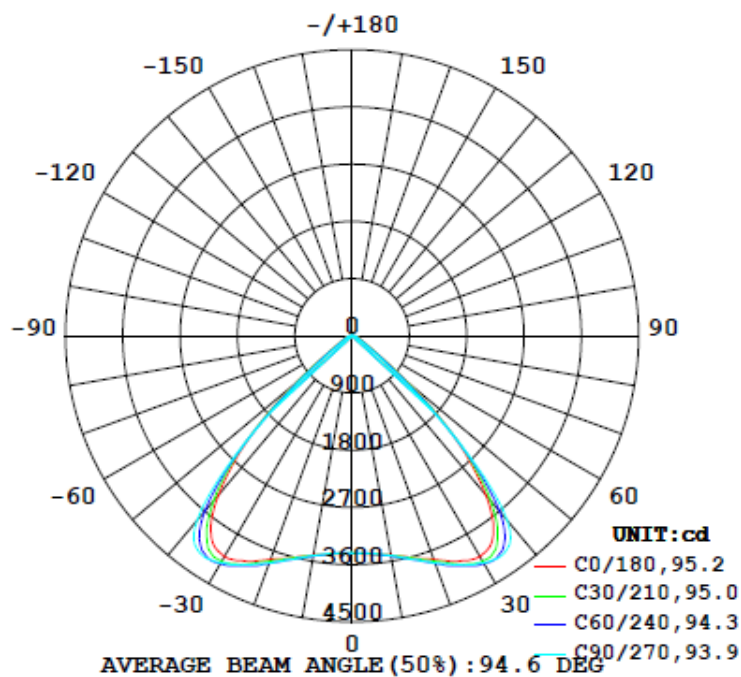
Test Result

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°)
8159	93.6	107.9	67.8	90.2	140.7	99.4%

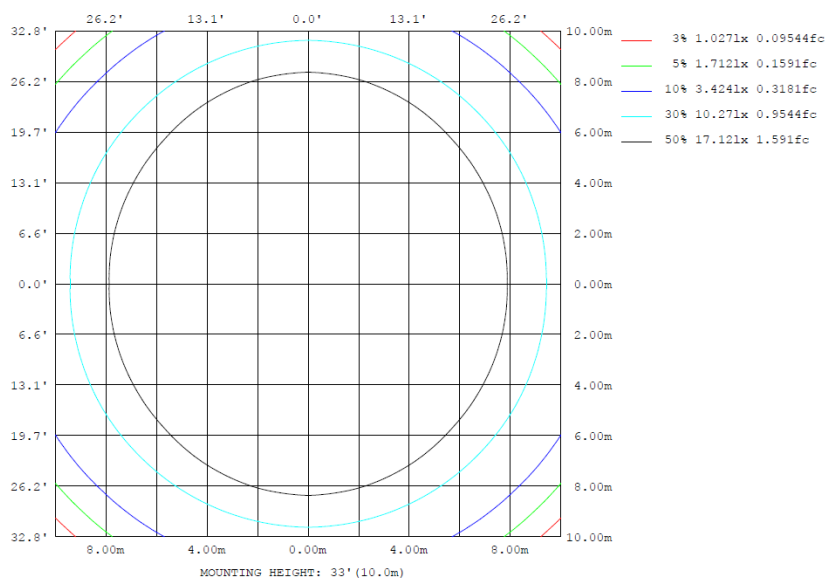
4.2 Goniophotometer Test

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	3499	3503	3511	3503	3499	3503	3511	3503	0- 10	330.9	330.9	4.06,4.06
20	3741	3788	3800	3788	3741	3788	3800	3788	10- 20	1035	1366	16.7,16.7
30	4007	4116	4123	4116	4007	4116	4123	4116	20- 30	1839	3205	39.3,39.3
40	3270	3460	3789	3460	3270	3460	3789	3460	30- 40	2480	5684	69.7,69.7
50	1150	1024	840.0	1024	1150	1024	840.0	1024	40- 50	1767	7451	91.3,91.3
60	239.6	208.6	142.6	208.6	239.6	208.6	142.6	208.6	50- 60	406.5	7857	96.3,96.3
70	119.8	102.5	81.47	102.5	119.8	102.5	81.47	102.5	60- 70	140.3	7998	98,98
80	41.74	58.63	51.40	58.63	41.74	58.63	51.40	58.63	70- 80	77.53	8075	99,99
90	3.741	26.64	33.99	26.64	3.741	26.64	33.99	26.64	80- 90	38.65	8114	99.4,99.4
100	3.432	10.40	24.69	10.40	3.432	10.40	24.69	10.40	90-100	15.45	8129	99.6,99.6
110	5.829	1.871	9.429	1.871	5.829	1.871	9.429	1.871	100-110	6.499	8136	99.7,99.7
120	12.60	1.776	1.333	1.776	12.60	1.776	1.333	1.776	110-120	3.150	8139	99.8,99.8
130	13.54	2.614	1.899	2.614	13.54	2.614	1.899	2.614	120-130	3.167	8142	99.8,99.8
140	13.54	4.951	3.800	4.951	13.54	4.951	3.800	4.951	130-140	4.162	8146	99.8,99.8
150	15.67	6.634	5.413	6.634	15.67	6.634	5.413	6.634	140-150	4.803	8151	99.9,99.9
160	13.63	6.822	5.509	6.822	13.63	6.822	5.509	6.822	150-160	3.825	8155	99.9,99.9
170	27.07	9.893	7.972	9.893	27.07	9.893	7.972	9.893	160-170	2.914	8158	100,100
180	28.01	10.56	9.211	10.56	28.01	10.56	9.211	10.56	170-180	1.284	8159	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)	Total (lm)	Percent
0-10	330.92	4.06%
10-20	1034.71	16.74%
20-30	1838.95	39.28%
30-40	2479.80	69.68%
40-50	1766.58	91.33%
50-60	406.51	96.32%
60-70	140.34	98.04%
70-80	77.53	98.99%
80-90	38.65	99.46%
90-100	15.45	99.65%
100-110	6.50	99.73%
110-120	3.15	99.77%
120-130	3.17	99.81%
130-140	4.16	99.86%
140-150	4.80	99.92%
150-160	3.83	99.96%
160-170	2.91	100.00%
170-180	1.29	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	3424	3420	3418	3420	3422	3427	3419	3427	3422	3420	3418	3420	3424	3420	3418	3420	3422	3427	3419
5	3448	3452	3444	3442	3441	3448	3436	3448	3441	3442	3444	3452	3448	3452	3444	3442	3441	3448	3436
10	3499	3507	3506	3503	3519	3526	3511	3526	3519	3503	3506	3507	3499	3507	3506	3503	3519	3526	3511
15	3616	3607	3616	3623	3640	3652	3639	3652	3640	3623	3616	3607	3616	3607	3616	3623	3640	3652	3639
20	3741	3763	3772	3788	3809	3827	3800	3827	3809	3788	3772	3763	3741	3763	3772	3788	3809	3827	3800
25	3915	3937	3965	3965	3985	4006	3975	4006	3985	3965	3965	3937	3915	3937	3965	3965	3985	4006	3975
30	4007	4057	4098	4116	4136	4151	4123	4151	4136	4116	4098	4057	4007	4057	4098	4116	4136	4151	4123
35	3858	3914	3972	4024	4115	4185	4172	4185	4115	4024	3972	3914	3858	3914	3972	4024	4115	4185	4172
40	3270	3319	3386	3460	3603	3730	3789	3730	3603	3460	3386	3319	3270	3319	3386	3460	3603	3730	3789
45	2317	2347	2367	2345	2358	2361	2382	2361	2358	2345	2367	2347	2317	2347	2367	2345	2358	2361	2382
50	1150	1141	1099	1024	996	889	840	889	996	1024	1099	1141	1150	1141	1099	1024	996	889	840
55	448	451	422	391	365	313	280	313	365	391	422	451	448	451	422	391	365	313	280
60	240	245	225	209	187	161	143	161	187	209	225	245	240	245	225	209	187	161	143
65	167	165	152	141	124	106	97.8	106	124	141	152	165	167	165	152	141	124	106	97.8
70	120	118	112	103	91.5	79.4	81.5	79.4	91.5	103	112	118	120	118	112	103	91.5	79.4	81.5
75	93.1	75.6	76.7	73.0	67.2	58.7	60.9	58.7	67.2	73.0	76.7	75.6	93.1	75.6	76.7	73.0	67.2	58.7	60.9
80	41.7	43.2	54.9	58.6	62.9	56.7	51.4	56.7	62.9	58.6	54.9	43.2	41.7	43.2	54.9	58.6	62.9	56.7	51.4
85	20.7	26.0	35.3	35.1	35.9	33.4	32.9	33.4	35.9	35.1	35.3	26.0	20.7	26.0	35.3	35.1	35.9	33.4	32.9
90	3.74	12.2	29.2	26.6	22.0	21.8	34.0	21.8	22.0	26.6	29.2	12.2	3.74	12.2	29.2	26.6	22.0	21.8	34.0
95	3.43	4.62	11.7	13.6	14.9	16.7	27.2	16.7	14.9	13.6	11.7	4.62	3.43	4.62	11.7	13.6	14.9	16.7	27.2
100	3.43	2.62	4.86	10.4	15.1	19.6	24.7	19.6	15.1	10.4	4.86	2.62	3.43	2.62	4.86	10.4	15.1	19.6	24.7
105	3.79	2.62	2.34	3.09	5.57	9.69	14.0	9.69	5.57	3.09	2.34	2.62	3.79	2.62	2.34	3.09	5.57	9.69	14.0
110	5.83	2.62	2.24	1.87	2.74	6.18	9.43	6.18	2.74	1.87	2.24	2.62	5.83	2.62	2.24	1.87	2.74	6.18	9.43
115	9.63	2.99	2.24	1.78	1.60	2.76	4.30	2.76	1.60	1.78	2.24	2.99	9.63	2.99	2.24	1.78	1.60	2.76	4.30
120	12.6	4.30	2.24	1.78	1.41	1.33	1.33	1.33	1.41	1.78	2.24	4.30	12.6	4.30	2.24	1.78	1.41	1.33	1.33
125	14.1	6.07	2.52	1.87	1.41	1.33	1.33	1.33	1.41	1.87	2.52	6.07	14.1	6.07	2.52	1.87	1.41	1.33	1.33
130	13.5	7.66	3.27	2.61	2.26	1.99	1.90	1.99	2.26	2.61	3.27	7.66	13.5	7.66	3.27	2.61	2.26	1.99	1.90
135	13.5	9.24	4.57	3.73	3.29	3.22	2.75	3.22	3.29	3.73	4.57	9.24	13.5	9.24	4.57	3.73	3.29	3.22	2.75
140	13.5	10.7	5.79	4.95	4.71	4.55	3.80	4.55	4.71	4.95	5.79	10.7	13.5	10.7	5.79	4.95	4.71	4.55	3.80
145	14.7	12.3	7.01	6.17	5.84	5.70	4.84	5.70	5.84	6.17	7.01	12.3	14.7	12.3	7.01	6.17	5.84	5.70	4.84
150	15.7	12.8	7.57	6.63	6.32	6.27	5.41	6.27	6.32	6.63	7.57	12.8	15.7	12.8	7.57	6.63	6.32	6.27	5.41
155	14.5	12.5	7.47	6.82	6.41	6.36	5.42	6.36	6.41	6.82	7.47	12.5	14.5	12.5	7.47	6.82	6.41	6.36	5.42
160	13.6	12.0	7.47	6.82	6.51	6.36	5.51	6.36	6.51	6.82	7.47	12.0	13.6	12.0	7.47	6.82	6.51	6.36	5.51
165	20.7	17.1	9.81	8.40	7.91	7.78	6.92	7.78	7.91	8.40	9.81	17.1	20.7	17.1	9.81	8.40	7.91	7.78	6.92
170	27.1	20.1	11.8	9.89	9.33	8.92	7.97	8.92	9.33	9.89	11.8	20.1	27.1	20.1	11.8	9.89	9.33	8.92	7.97
175	28.0	20.9	12.5	10.5	9.90	9.78	8.83	9.78	9.90	10.5	12.5	20.9	28.0	20.9	12.5	10.5	9.90	9.78	8.83
180	28.0	20.9	12.4	10.6	10.1	10.3	9.21	10.3	10.1	10.6	12.4	20.9	28.0	20.9	12.4	10.6	10.1	10.3	9.21

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	3427	3422	3420	3418	3420														
5	3448	3441	3442	3444	3452														
10	3526	3519	3503	3506	3507														
15	3652	3640	3623	3616	3607														
20	3827	3809	3788	3772	3763														
25	4006	3985	3965	3965	3937														
30	4151	4136	4116	4098	4057														
35	4185	4115	4024	3972	3914														
40	3730	3603	3460	3386	3319														
45	2361	2358	2345	2367	2347														
50	889	996	1024	1099	1141														
55	313	365	391	422	451														
60	161	187	209	225	245														
65	106	124	141	152	165														
70	79.4	91.5	103	112	118														
75	58.7	67.2	73.0	76.7	75.6														
80	56.7	62.9	58.6	54.9	43.2														
85	33.4	35.9	35.1	35.3	26.0														
90	21.8	22.0	26.6	29.2	12.2														
95	16.7	14.9	13.6	11.7	4.62														
100	19.6	15.1	10.4	4.86	2.62														
105	9.69	5.57	3.09	2.34	2.62														
110	6.18	2.74	1.87	2.24	2.62														
115	2.76	1.60	1.78	2.24	2.99														
120	1.33	1.41	1.78	2.24	4.30														
125	1.33	1.41	1.87	2.52	6.07														
130	1.99	2.26	2.61	3.27	7.66														
135	3.22	3.29	3.73	4.57	9.24														
140	4.55	4.71	4.95	5.79	10.7														
145	5.70	5.84	6.17	7.01	12.3														
150	6.27	6.32	6.63	7.57	12.8														
155	6.36	6.41	6.82	7.47	12.5														
160	6.36	6.51	6.82	7.47	12.0														
165	7.78	7.91	8.40	9.81	17.1														
170	8.92	9.33	9.89	11.8	20.1														
175	9.78	9.90	10.5	12.5	20.9														
180	10.3	10.1	10.6	12.4	20.9														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @60W3500K	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	0.487	58.0	0.993	9.56

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*****