

Photometric Test Report

Relevant Standards

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

Prepared For

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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		7113
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	148.2
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		48.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.60
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	3985±275	4035
			4 steps	3985±154	
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		82
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%		-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		0.404
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		48.0
(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 @50W4000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @50W4000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @50W4000K	-	251017004-S1

Remark (If any):

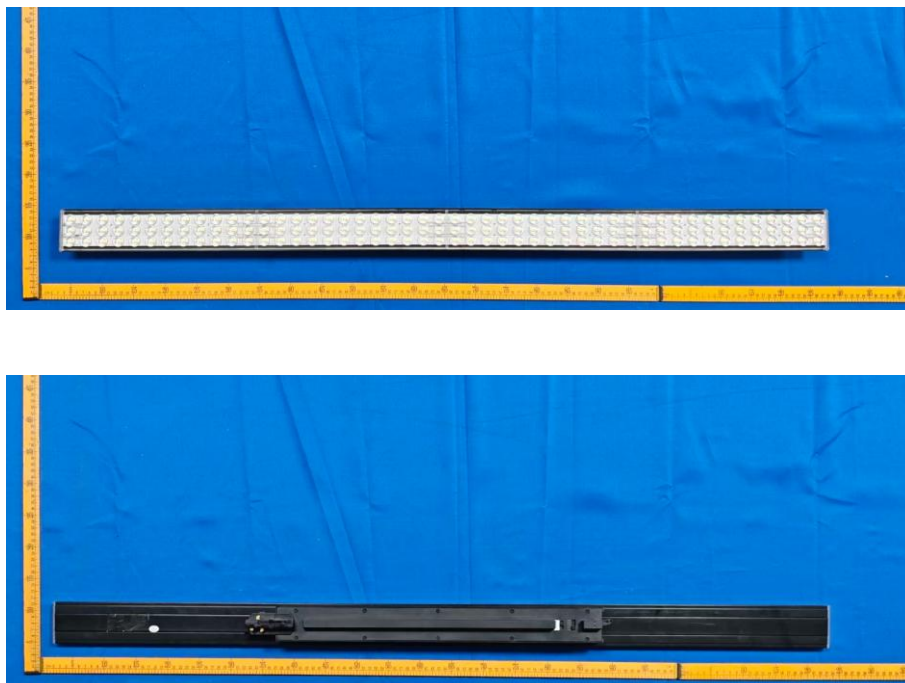
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3.0 Product Description

Luminaire Description: Model No. TKBEAM4B @50W4000K, 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 @50W4000K	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.

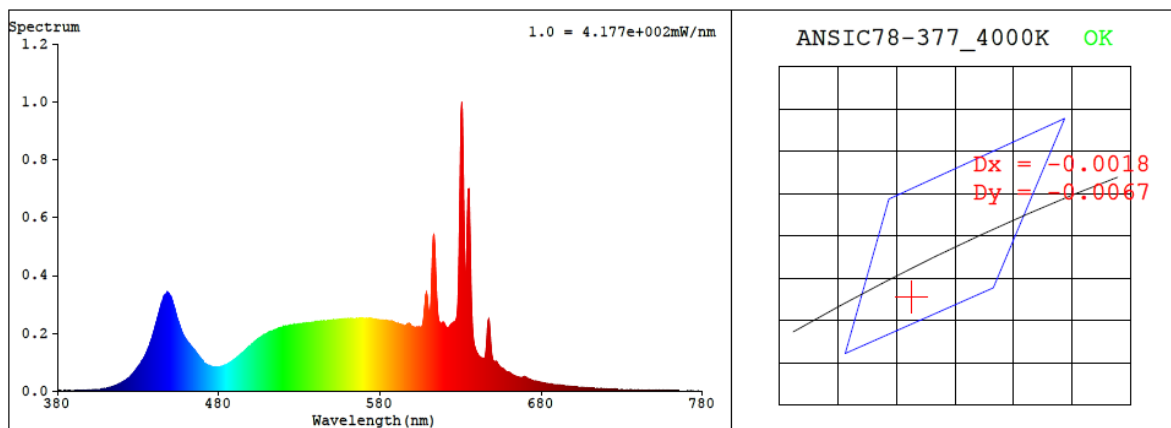
The sample was measured using 4 π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to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

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.404	48.0	0.991

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4035	93.7	82	-0.0027	4.1	90	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3771$ $y = 0.3691$ / $u' = 0.2260$ $v' = 0.4977$ ($duv = -2.66 \times 10^{-3}$)

CCT= 4035K Prcp WL: $\lambda_d = 580.6 \text{ nm}$ Purity=23.9%

Peak WL: $\lambda_p = 631 \text{ nm}$ FWHM: $\approx 3.6 \text{ nm}$ Ratio: R=20.7% G=75.7% B=3.7%

Render Index: $R_a = 93.7$ AvgR = 91.4 TM30: $R_f = 90$ $R_g = 103$

EEL: 0.00000 A++ Highest

R1 = 98 R2 = 94 R3 = 89 R4 = 93 R5 = 96 R6 = 92 R7 = 94

R8 = 94 R9 = 82 R10 = 84 R11 = 92 R12 = 77 R13 = 96 R14 = 93 R15 = 97

4.1 Integrating Sphere Test

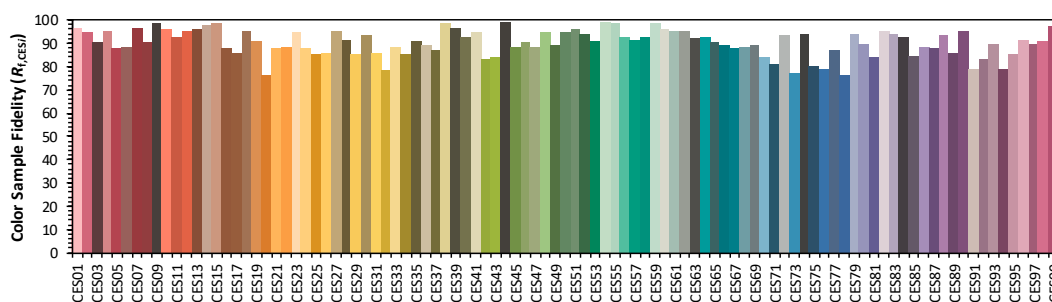
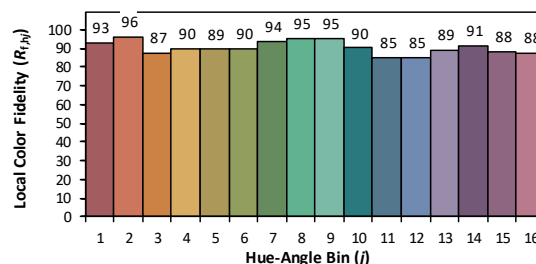
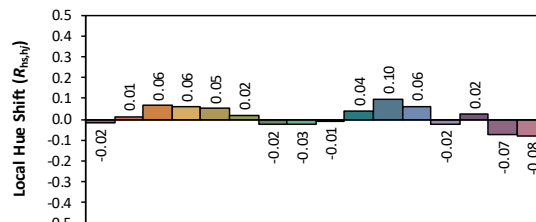
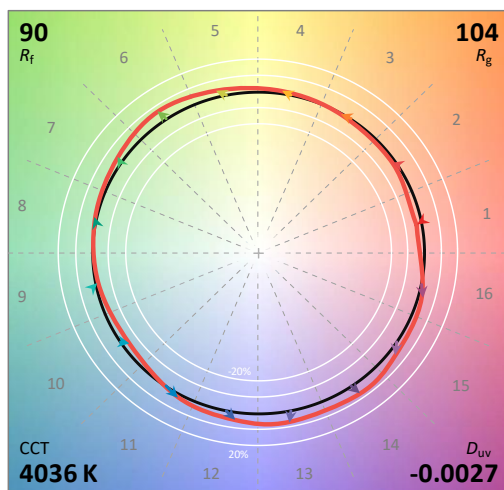
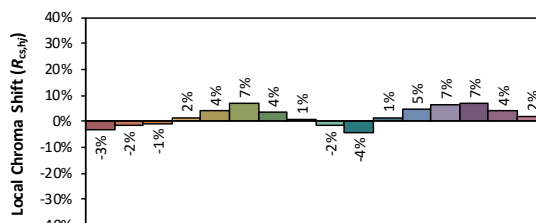
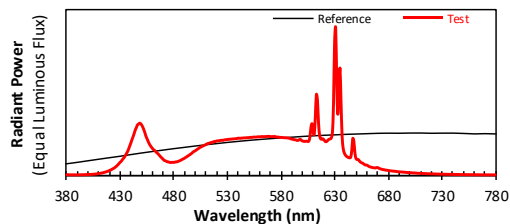
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @50W4000K



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

x 0.3771
 y 0.3689
 u' 0.2260
 v' 0.4976

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	2.10E-06	447	3.32E-04	514	2.11E-04	581	2.46E-04	648	2.20E-04	715	9.70E-06
381	3.10E-06	448	3.38E-04	515	2.13E-04	582	2.45E-04	649	1.42E-04	716	9.40E-06
382	2.10E-06	449	3.36E-04	516	2.14E-04	583	2.44E-04	650	1.08E-04	717	8.80E-06
383	1.50E-06	450	3.27E-04	517	2.17E-04	584	2.44E-04	651	1.02E-04	718	8.90E-06
384	2.20E-06	451	3.14E-04	518	2.19E-04	585	2.43E-04	652	1.02E-04	719	8.50E-06
385	1.80E-06	452	2.97E-04	519	2.19E-04	586	2.43E-04	653	9.37E-05	720	8.20E-06
386	1.70E-06	453	2.77E-04	520	2.23E-04	587	2.41E-04	654	8.57E-05	721	7.90E-06
387	2.20E-06	454	2.54E-04	521	2.23E-04	588	2.40E-04	655	8.10E-05	722	7.90E-06
388	1.80E-06	455	2.37E-04	522	2.24E-04	589	2.37E-04	656	7.85E-05	723	7.80E-06
389	1.40E-06	456	2.21E-04	523	2.25E-04	590	2.35E-04	657	7.37E-05	724	7.40E-06
390	1.90E-06	457	2.06E-04	524	2.27E-04	591	2.34E-04	658	6.84E-05	725	7.00E-06
391	2.20E-06	458	1.93E-04	525	2.27E-04	592	2.31E-04	659	6.56E-05	726	6.90E-06
392	2.30E-06	459	1.84E-04	526	2.27E-04	593	2.31E-04	660	6.53E-05	727	6.60E-06
393	1.80E-06	460	1.75E-04	527	2.29E-04	594	2.29E-04	661	6.18E-05	728	6.50E-06
394	2.60E-06	461	1.67E-04	528	2.30E-04	595	2.26E-04	662	5.69E-05	729	6.40E-06
395	2.20E-06	462	1.61E-04	529	2.31E-04	596	2.27E-04	663	5.36E-05	730	6.20E-06
396	2.70E-06	463	1.54E-04	530	2.33E-04	597	2.31E-04	664	5.19E-05	731	5.90E-06
397	3.00E-06	464	1.46E-04	531	2.33E-04	598	2.33E-04	665	4.99E-05	732	5.70E-06
398	3.10E-06	465	1.41E-04	532	2.34E-04	599	2.28E-04	666	4.83E-05	733	5.60E-06
399	3.60E-06	466	1.33E-04	533	2.34E-04	600	2.22E-04	667	4.75E-05	734	5.40E-06
400	3.80E-06	467	1.25E-04	534	2.35E-04	601	2.21E-04	668	4.66E-05	735	5.10E-06
401	4.10E-06	468	1.17E-04	535	2.36E-04	602	2.20E-04	669	4.86E-05	736	5.10E-06
402	4.10E-06	469	1.11E-04	536	2.36E-04	603	2.21E-04	670	4.93E-05	737	4.90E-06
403	4.70E-06	470	1.04E-04	537	2.37E-04	604	2.21E-04	671	4.60E-05	738	4.80E-06
404	5.00E-06	471	9.65E-05	538	2.37E-04	605	2.19E-04	672	4.26E-05	739	4.60E-06
405	5.80E-06	472	9.36E-05	539	2.39E-04	606	2.22E-04	673	4.03E-05	740	4.60E-06
406	6.20E-06	473	9.03E-05	540	2.41E-04	607	2.49E-04	674	3.82E-05	741	4.30E-06
407	7.00E-06	474	8.71E-05	541	2.41E-04	608	3.13E-04	675	3.64E-05	742	4.30E-06
408	7.80E-06	475	8.59E-05	542	2.40E-04	609	3.35E-04	676	3.52E-05	743	4.00E-06
409	9.20E-06	476	8.35E-05	543	2.42E-04	610	2.81E-04	677	3.38E-05	744	4.00E-06
410	9.80E-06	477	8.21E-05	544	2.42E-04	611	2.65E-04	678	3.21E-05	745	3.90E-06
411	1.08E-05	478	8.34E-05	545	2.43E-04	612	3.73E-04	679	3.15E-05	746	3.80E-06
412	1.28E-05	479	8.32E-05	546	2.43E-04	613	5.25E-04	680	3.02E-05	747	3.60E-06
413	1.41E-05	480	8.31E-05	547	2.43E-04	614	4.89E-04	681	2.92E-05	748	3.50E-06
414	1.55E-05	481	8.45E-05	548	2.44E-04	615	3.43E-04	682	2.81E-05	749	3.30E-06
415	1.76E-05	482	8.60E-05	549	2.44E-04	616	2.61E-04	683	2.72E-05	750	3.10E-06
416	1.98E-05	483	8.69E-05	550	2.45E-04	617	2.37E-04	684	2.64E-05	751	3.30E-06
417	2.17E-05	484	8.95E-05	551	2.46E-04	618	2.34E-04	685	2.57E-05	752	3.20E-06
418	2.38E-05	485	9.21E-05	552	2.45E-04	619	2.37E-04	686	2.51E-05	753	3.10E-06
419	2.67E-05	486	9.52E-05	553	2.47E-04	620	2.31E-04	687	2.41E-05	754	2.90E-06
420	3.06E-05	487	9.89E-05	554	2.47E-04	621	2.22E-04	688	2.32E-05	755	2.90E-06
421	3.28E-05	488	1.03E-04	555	2.48E-04	622	2.18E-04	689	2.25E-05	756	2.80E-06
422	3.70E-05	489	1.06E-04	556	2.48E-04	623	2.22E-04	690	2.16E-05	757	2.70E-06
423	4.09E-05	490	1.10E-04	557	2.48E-04	624	2.30E-04	691	2.10E-05	758	2.70E-06
424	4.48E-05	491	1.15E-04	558	2.49E-04	625	2.34E-04	692	2.05E-05	759	2.70E-06
425	4.95E-05	492	1.19E-04	559	2.50E-04	626	2.36E-04	693	1.98E-05	760	2.30E-06
426	5.51E-05	493	1.24E-04	560	2.50E-04	627	2.43E-04	694	1.96E-05	761	2.30E-06
427	6.17E-05	494	1.29E-04	561	2.50E-04	628	2.77E-04	695	1.87E-05	762	2.30E-06
428	6.84E-05	495	1.34E-04	562	2.52E-04	629	4.64E-04	696	1.82E-05	763	2.40E-06
429	7.67E-05	496	1.39E-04	563	2.50E-04	630	8.62E-04	697	1.73E-05	764	2.10E-06
430	8.44E-05	497	1.44E-04	564	2.51E-04	631	9.64E-04	698	1.68E-05	765	2.20E-06
431	9.06E-05	498	1.51E-04	565	2.51E-04	632	6.24E-04	699	1.63E-05	766	2.10E-06
432	1.01E-04	499	1.55E-04	566	2.51E-04	633	3.97E-04	700	1.57E-05	767	1.90E-06
433	1.09E-04	500	1.59E-04	567	2.52E-04	634	5.50E-04	701	1.52E-05	768	1.90E-06
434	1.18E-04	501	1.64E-04	568	2.52E-04	635	6.99E-04	702	1.49E-05	769	2.00E-06
435	1.30E-04	502	1.69E-04	569	2.53E-04	636	4.81E-04	703	1.44E-05	770	1.90E-06
436	1.43E-04	503	1.73E-04	570	2.51E-04	637	2.57E-04	704	1.40E-05	771	1.90E-06
437	1.56E-04	504	1.78E-04	571	2.51E-04	638	1.77E-04	705	1.36E-05	772	1.70E-06
438	1.73E-04	505	1.83E-04	572	2.51E-04	639	1.46E-04	706	1.30E-05	773	1.70E-06
439	1.93E-04	506	1.86E-04	573	2.51E-04	640	1.32E-04	707	1.25E-05	774	1.70E-06
440	2.11E-04	507	1.90E-04	574	2.52E-04	641	1.24E-04	708	1.21E-05	775	1.60E-06
441	2.32E-04	508	1.93E-04	575	2.50E-04	642	1.18E-04	709	1.17E-05	776	1.60E-06
442	2.51E-04	509	1.96E-04	576	2.48E-04	643	1.15E-04	710	1.13E-05	777	1.50E-06
443	2.72E-04	510	2.00E-04	577	2.49E-04	644	1.13E-04	711	1.11E-05	778	1.50E-06
444	2.94E-04	511	2.04E-04	578	2.47E-04	645	1.16E-04	712	1.07E-05	779	1.50E-06
445	3.09E-04	512	2.06E-04	579	2.46E-04	646	1.57E-04	713	1.04E-05	780	1.50E-06
446	3.26E-04	513	2.07E-04	580	2.46E-04	647	2.39E-04	714	1.01E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @50W4000K	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	0.404	48.0	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

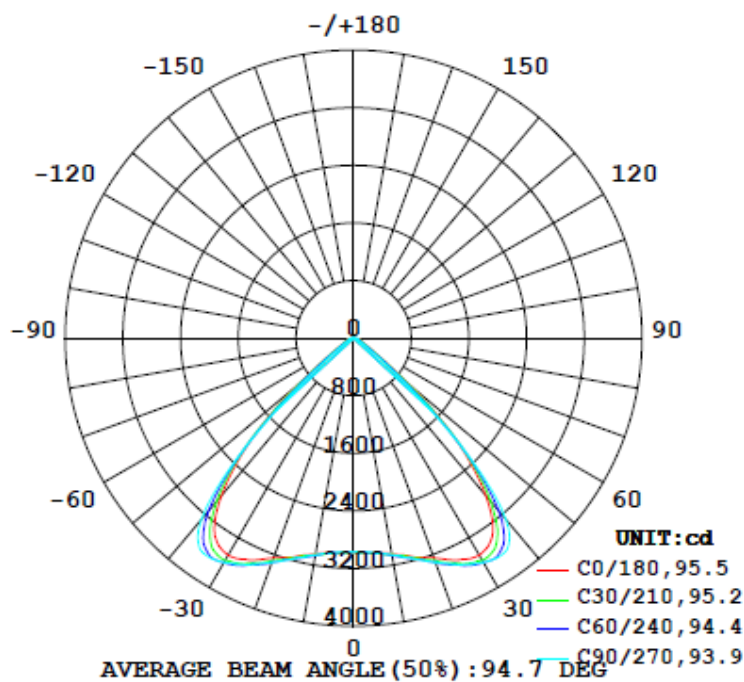
Test Result

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°)
7113	93.8	107.9	67.9	90.2	148.2	99.4%

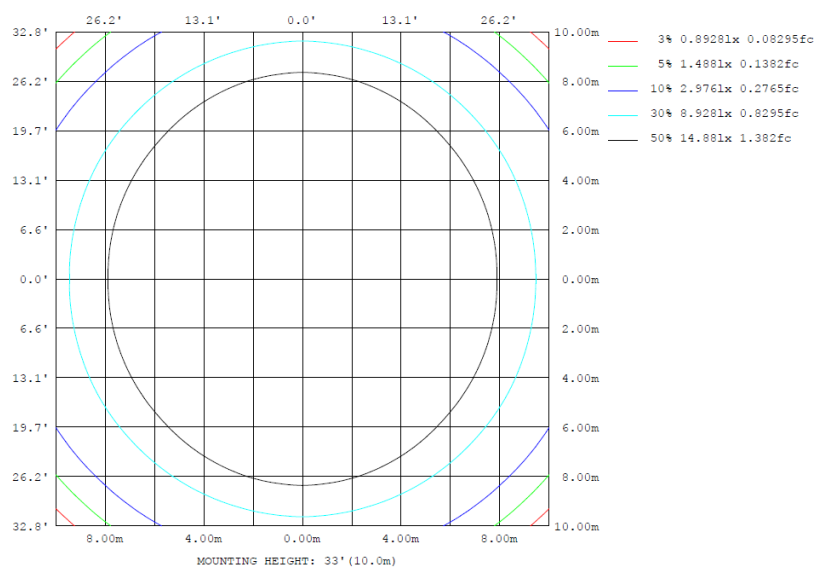
4.2 Goniophotometer Test

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	3042	3055	3056	3055	3042	3055	3056	3055	0~ 10	287.8	287.8	4.05,4.05
20	3248	3295	3314	3295	3248	3295	3314	3295	10~ 20	900.5	1188	16.7,16.7
30	3483	3583	3597	3583	3483	3583	3597	3583	20~ 30	1600	2788	39.2,39.2
40	2853	3015	3290	3015	2853	3015	3290	3015	30~ 40	2158	4946	69.5,69.5
50	1024	903.8	730.4	903.8	1024	903.8	730.4	903.8	40~ 50	1544	6491	91.3,91.3
60	211.4	182.6	124.5	182.6	211.4	182.6	124.5	182.6	50~ 60	358.3	6849	96.3,96.3
70	105.2	89.40	70.88	89.40	105.2	89.40	70.88	89.40	60~ 70	122.7	6972	98.98
80	36.32	51.56	44.77	51.56	36.32	51.56	44.77	51.56	70~ 80	67.73	7039	99.99
90	3.492	23.72	29.78	23.72	3.492	23.72	29.78	23.72	80~ 90	33.88	7073	99.4,99.4
100	3.059	9.157	21.34	9.157	3.059	9.157	21.34	9.157	90~100	13.52	7087	99.6,99.6
110	5.093	1.685	8.278	1.685	5.093	1.685	8.278	1.685	100~110	5.711	7093	99.7,99.7
120	10.93	1.587	1.233	1.587	10.93	1.587	1.233	1.587	110~120	2.776	7095	99.8,99.8
130	11.78	2.235	1.702	2.235	11.78	2.235	1.702	2.235	120~130	2.739	7098	99.8,99.8
140	11.77	4.290	3.223	4.290	11.77	4.290	3.223	4.290	130~140	3.603	7102	99.8,99.8
150	13.71	5.692	4.456	5.692	13.71	5.692	4.456	5.692	140~150	4.174	7106	99.9,99.9
160	11.96	5.786	4.458	5.786	11.96	5.786	4.458	5.786	150~160	3.301	7109	99.9,99.9
170	23.54	8.493	7.101	8.493	23.54	8.493	7.101	8.493	160~170	2.527	7112	100,100
180	24.38	9.150	7.873	9.150	24.38	9.150	7.873	9.150	170~180	1.114	7113	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	287.81	0-10	287.81	4.05%
10-20	900.51	0-20	1188.32	16.71%
20-30	1600.04	0-30	2788.36	39.21%
30-40	2157.87	0-40	4946.23	69.55%
40-50	1544.47	0-50	6490.70	91.27%
50-60	358.33	0-60	6849.03	96.31%
60-70	122.70	0-70	6971.73	98.03%
70-80	67.73	0-80	7039.46	98.98%
80-90	33.88	0-90	7073.34	99.46%
90-100	13.52	0-100	7086.86	99.65%
100-110	5.71	0-110	7092.57	99.73%
110-120	2.78	0-120	7095.35	99.77%
120-130	2.74	0-130	7098.09	99.81%
130-140	3.60	0-140	7101.69	99.86%
140-150	4.17	0-150	7105.86	99.92%
150-160	3.30	0-160	7109.16	99.96%
160-170	2.53	0-170	7111.69	100.00%
170-180	1.12	0-180	7112.81	100.02%

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	2976	2974	2974	2975	2973	2977	2972	2977	2973	2975	2974	2974	2976	2974	2974	2975	2973	2977	2972
5	2999	2997	3000	2992	2992	2994	2988	2994	2992	2992	3000	2997	2999	2997	3000	2992	2992	2994	2988
10	3042	3050	3054	3055	3064	3061	3056	3061	3064	3055	3054	3050	3042	3050	3054	3055	3064	3061	3056
15	3143	3132	3157	3158	3172	3178	3171	3178	3172	3158	3157	3132	3143	3132	3157	3158	3172	3178	3171
20	3248	3262	3287	3295	3318	3331	3314	3331	3318	3295	3287	3262	3248	3262	3287	3295	3318	3331	3314
25	3403	3413	3454	3454	3477	3492	3472	3492	3477	3454	3454	3413	3403	3413	3454	3454	3477	3492	3472
30	3483	3521	3564	3583	3599	3615	3597	3615	3599	3583	3564	3521	3483	3521	3564	3583	3599	3615	3597
35	3354	3400	3460	3505	3578	3640	3643	3640	3578	3505	3460	3400	3354	3400	3460	3505	3578	3640	3643
40	2853	2896	2958	3015	3135	3242	3290	3242	3135	3015	2958	2896	2853	2896	2958	3015	3135	3242	3290
45	2046	2063	2082	2058	2062	2055	2074	2055	2062	2058	2082	2063	2046	2063	2082	2058	2062	2055	2074
50	1024	1011	970	904	873	775	730	775	873	904	970	1011	1024	1011	970	904	873	775	730
55	398	401	375	345	320	273	245	273	320	345	375	401	398	401	375	345	320	273	245
60	211	216	198	183	163	140	124	140	163	183	198	216	211	216	198	183	163	140	124
65	146	144	134	123	108	92.5	85.2	92.5	108	123	134	144	146	144	134	123	108	92.5	85.2
70	105	103	98.6	89.4	79.6	69.0	70.9	69.0	79.6	89.4	98.6	103	105	103	98.6	89.4	79.6	69.0	70.9
75	81.6	66.2	66.6	64.1	58.8	51.0	53.0	51.0	58.8	64.1	66.6	66.2	81.6	66.2	66.6	64.1	58.8	51.0	53.0
80	36.3	37.7	48.2	51.6	55.1	49.2	44.8	49.2	55.1	51.6	48.2	37.7	36.3	37.7	48.2	51.6	55.1	49.2	44.8
85	18.0	22.4	31.3	31.2	31.8	29.2	27.1	29.2	31.8	31.2	31.3	22.4	18.0	22.4	31.3	31.2	31.8	29.2	27.1
90	3.49	10.6	25.4	23.7	19.3	18.8	29.8	18.8	19.3	23.7	25.4	10.6	3.49	10.6	25.4	23.7	19.3	18.8	29.8
95	3.06	4.11	10.3	12.0	13.2	14.5	23.7	14.5	13.2	12.0	10.3	4.11	3.06	4.11	10.3	12.0	13.2	14.5	23.7
100	3.06	2.33	4.31	9.16	13.2	16.8	21.3	16.8	13.2	9.16	4.31	2.33	3.06	2.33	4.31	9.16	13.2	16.8	21.3
105	3.15	2.33	1.97	2.90	4.83	8.54	12.3	8.54	4.83	2.90	1.97	2.33	3.15	2.33	1.97	2.90	4.83	8.54	12.3
110	5.09	2.33	1.96	1.69	2.46	5.49	8.28	5.49	2.46	1.69	1.96	2.33	5.09	2.33	1.96	1.69	2.46	5.49	8.28
115	8.34	2.61	1.96	1.59	1.42	2.48	3.82	2.48	1.42	1.59	1.96	2.61	8.34	2.61	1.96	1.59	1.42	2.48	3.82
120	10.9	3.73	1.96	1.59	1.22	1.23	1.23	1.22	1.59	1.96	3.73	10.9	3.73	1.96	1.59	1.22	1.23	1.23	1.23
125	12.1	5.22	2.05	1.59	1.22	1.23	1.14	1.23	1.22	1.59	2.05	5.22	12.1	5.22	2.05	1.59	1.22	1.23	1.14
130	11.8	6.90	2.89	2.24	1.97	1.79	1.70	1.79	1.97	2.24	2.89	6.90	11.8	6.90	2.89	2.24	1.97	1.79	1.70
135	11.8	7.93	3.83	3.17	2.91	2.84	2.56	2.84	2.91	3.17	3.83	7.93	11.8	7.93	3.83	3.17	2.91	2.84	2.56
140	11.8	9.23	5.04	4.29	4.04	3.97	3.22	3.97	4.04	4.29	5.04	9.23	11.8	9.23	5.04	4.29	4.04	3.97	3.22
145	13.0	10.6	6.17	5.51	5.08	5.11	4.17	5.11	5.08	5.51	6.17	10.6	13.0	10.6	6.17	5.51	5.08	5.11	4.17
150	13.7	11.0	6.45	5.69	5.56	5.49	4.46	5.49	5.56	5.69	6.45	11.0	13.7	11.0	6.45	5.69	5.56	5.49	4.46
155	12.7	10.9	6.45	5.70	5.65	5.59	4.46	5.59	5.65	5.70	6.45	10.9	12.7	10.9	6.45	5.70	5.65	5.59	4.46
160	12.0	10.4	6.45	5.79	5.74	5.59	4.46	5.59	5.74	5.79	6.45	10.4	12.0	10.4	6.45	5.79	5.74	5.59	4.46
165	18.0	14.7	8.41	7.37	6.96	6.72	5.88	6.72	6.96	7.37	8.41	14.7	18.0	14.7	8.41	7.37	6.96	6.72	5.88
170	23.5	17.4	10.1	8.49	8.00	7.76	7.10	7.76	8.00	8.49	10.1	17.4	23.5	17.4	10.1	8.49	8.00	7.76	7.10
175	24.4	18.1	10.7	9.24	8.66	8.52	7.59	8.52	8.66	9.24	10.7	18.1	24.4	18.1	10.7	9.24	8.66	8.52	7.59
180	24.4	18.1	10.8	9.15	8.66	8.62	7.87	8.62	8.66	9.15	10.8	18.1	24.4	18.1	10.8	9.15	8.66	8.62	7.87

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	2977	2973	2975	2974	2974														
5	2994	2992	2992	3000	2997														
10	3061	3064	3055	3054	3050														
15	3178	3172	3158	3157	3132														
20	3331	3318	3295	3287	3262														
25	3492	3477	3454	3454	3413														
30	3615	3599	3583	3564	3521														
35	3640	3578	3505	3460	3400														
40	3242	3135	3015	2958	2896														
45	2055	2062	2058	2082	2063														
50	775	873	904	970	1011														
55	273	320	345	375	401														
60	140	163	183	198	216														
65	92.5	108	123	134	144														
70	69.0	79.6	89.4	98.6	103														
75	51.0	58.8	64.1	66.6	66.2														
80	49.2	55.1	51.6	48.2	37.7														
85	29.2	31.8	31.2	31.3	22.4														
90	18.8	19.3	23.7	25.4	10.6														
95	14.5	13.2	12.0	10.3	4.11														
100	16.8	13.2	9.16	4.31	2.33														
105	8.54	4.83	2.90	1.97	2.33														
110	5.49	2.46	1.69	1.96	2.33														
115	2.48	1.42	1.59	1.96	2.61														
120	1.23	1.22	1.59	1.96	3.73														
125	1.23	1.22	1.59	2.05	5.22														
130	1.79	1.97	2.24	2.89	6.90														
135	2.84	2.91	3.17	3.83	7.93														
140	3.97	4.04	4.29	5.04	9.23														
145	5.11	5.08	5.51	6.17	10.6														
150	5.49	5.56	5.69	6.45	11.0														
155	5.59	5.65	5.70	6.45	10.9														
160	5.59	5.74	5.79	6.45	10.4														
165	6.72	6.96	7.37	8.41	14.7														
170	7.76	8.00	8.49	10.1	17.4														
175	8.52	8.66	9.24	10.7	18.1														
180	8.62	8.66	9.15	10.8	18.1														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @50W4000K	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	0.404	48.0	0.991	9.60

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*****