

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		5808
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	152.4
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		38.1
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.75
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	3045±175	3066
			4 steps	3045±100	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.1
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		66
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		103
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		0.322
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		38.1
(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 @40W3000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @40W3000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @40W3000K	-	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 @40W3000K, 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 @40W3000K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

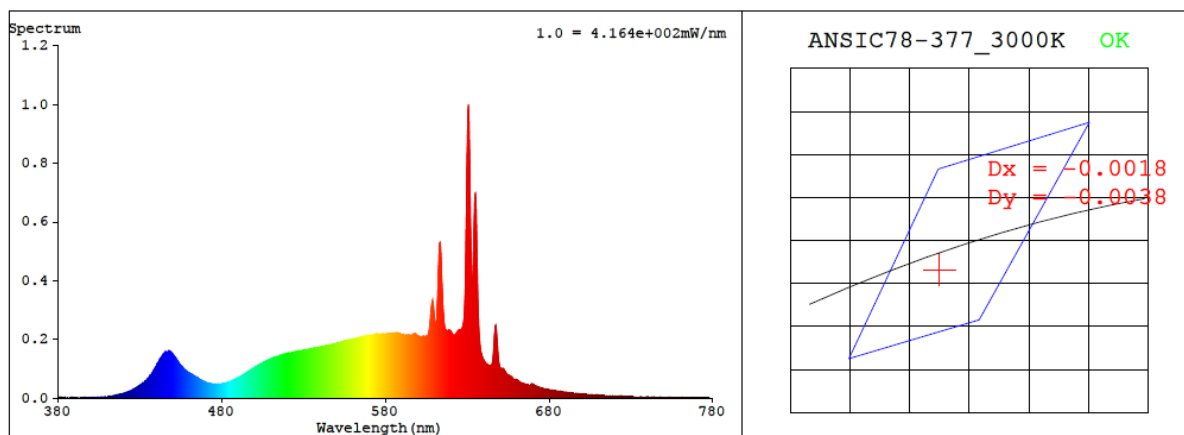
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.322	38.1	0.986

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3066	93.1	66	-0.0013	2.1	90	103	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4305$ $y = 0.3986$ / $u' = 0.2488$ $v' = 0.5183$ ($duv = -1.29e-03$)

CCT= 3066K Prcp WL: Ld=583.0nm Purity=48.9%

Peak WL: Lp=631nm FWHM: =3.6nm Ratio:R=24.6% G=72.8% B=2.6%

Render Index: Ra = 93.1 AvgR = 90.4 TM30:Rf=89 Rg=102

EEL: 0.08947 A++ Highest

R1 =95 R2 =95 R3 =93 R4 =94 R5 =94 R6 =95 R7 =93

R8 =87 R9 =66 R10=86 R11=94 R12=83 R13=95 R14=94 R15=92

4.1 Integrating Sphere Test

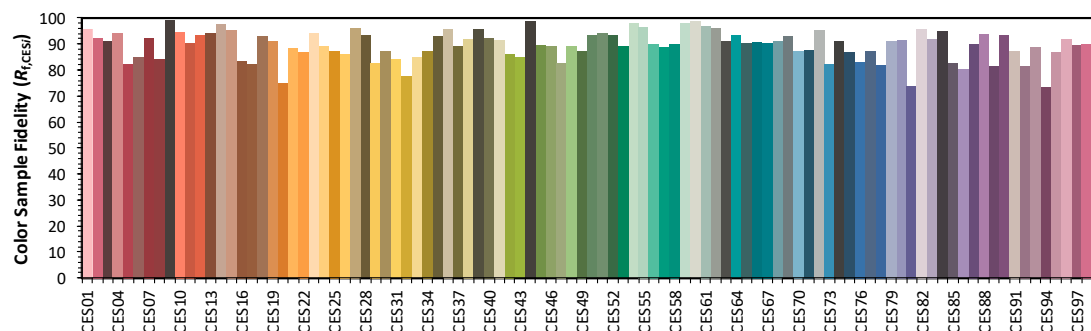
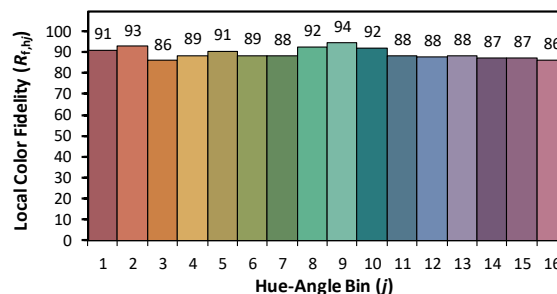
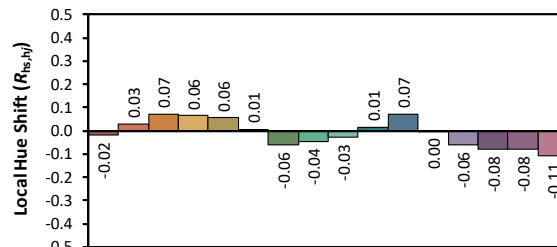
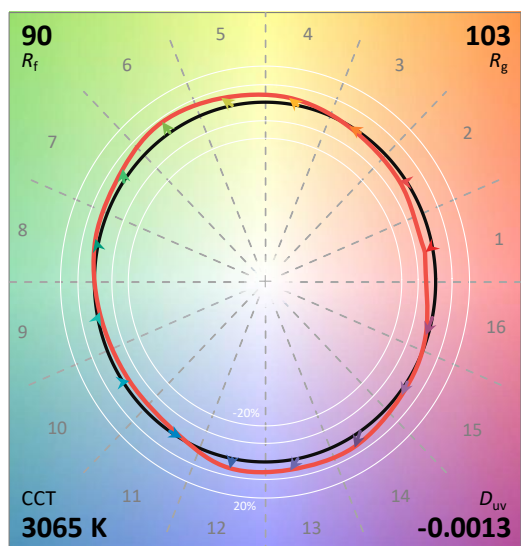
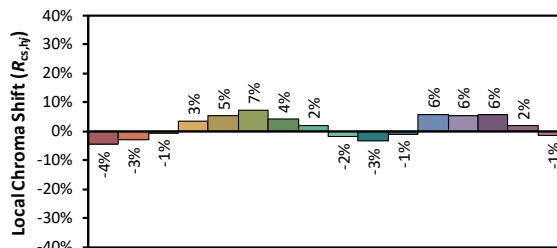
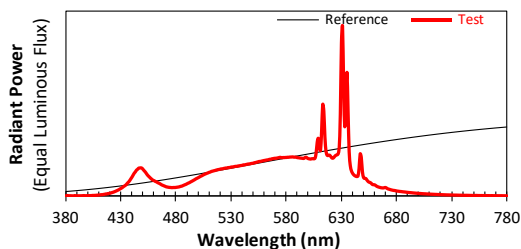
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @40W3000K



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

x 0.4305
 y 0.3985
 u' 0.2488
 v' 0.5182

CIE 13.3-1995
(CRI)
 R_a 93
 R_9 66

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	6.00E-07	447	1.59E-04	514	1.42E-04	581	2.19E-04	648	2.18E-04	715	9.00E-06
381	2.60E-06	448	1.59E-04	515	1.44E-04	582	2.19E-04	649	1.40E-04	716	8.90E-06
382	1.70E-06	449	1.57E-04	516	1.46E-04	583	2.20E-04	650	1.06E-04	717	8.60E-06
383	1.30E-06	450	1.50E-04	517	1.48E-04	584	2.21E-04	651	9.93E-05	718	8.20E-06
384	1.40E-06	451	1.43E-04	518	1.49E-04	585	2.21E-04	652	9.96E-05	719	7.80E-06
385	1.00E-06	452	1.36E-04	519	1.50E-04	586	2.21E-04	653	9.15E-05	720	7.70E-06
386	8.00E-07	453	1.27E-04	520	1.52E-04	587	2.20E-04	654	8.34E-05	721	7.30E-06
387	8.00E-07	454	1.19E-04	521	1.54E-04	588	2.20E-04	655	7.85E-05	722	7.20E-06
388	2.10E-06	455	1.12E-04	522	1.54E-04	589	2.19E-04	656	7.63E-05	723	6.90E-06
389	1.20E-06	456	1.06E-04	523	1.56E-04	590	2.17E-04	657	7.20E-05	724	6.70E-06
390	1.50E-06	457	9.95E-05	524	1.57E-04	591	2.17E-04	658	6.57E-05	725	6.40E-06
391	1.00E-06	458	9.43E-05	525	1.58E-04	592	2.16E-04	659	6.39E-05	726	6.20E-06
392	1.20E-06	459	8.93E-05	526	1.59E-04	593	2.15E-04	660	6.33E-05	727	6.10E-06
393	1.10E-06	460	8.67E-05	527	1.61E-04	594	2.14E-04	661	5.99E-05	728	5.90E-06
394	1.30E-06	461	8.29E-05	528	1.61E-04	595	2.13E-04	662	5.52E-05	729	5.80E-06
395	1.70E-06	462	8.04E-05	529	1.62E-04	596	2.13E-04	663	5.23E-05	730	5.50E-06
396	2.10E-06	463	7.66E-05	530	1.64E-04	597	2.18E-04	664	5.01E-05	731	5.50E-06
397	1.80E-06	464	7.34E-05	531	1.64E-04	598	2.19E-04	665	4.83E-05	732	5.10E-06
398	1.40E-06	465	7.05E-05	532	1.65E-04	599	2.15E-04	666	4.67E-05	733	5.00E-06
399	1.80E-06	466	6.66E-05	533	1.67E-04	600	2.12E-04	667	4.59E-05	734	5.00E-06
400	1.90E-06	467	6.27E-05	534	1.68E-04	601	2.10E-04	668	4.56E-05	735	4.80E-06
401	1.90E-06	468	6.01E-05	535	1.68E-04	602	2.09E-04	669	4.72E-05	736	4.60E-06
402	2.20E-06	469	5.74E-05	536	1.70E-04	603	2.11E-04	670	4.80E-05	737	4.40E-06
403	2.30E-06	470	5.48E-05	537	1.71E-04	604	2.11E-04	671	4.47E-05	738	4.40E-06
404	3.10E-06	471	5.20E-05	538	1.72E-04	605	2.11E-04	672	4.08E-05	739	4.20E-06
405	3.20E-06	472	5.08E-05	539	1.73E-04	606	2.14E-04	673	3.88E-05	740	4.10E-06
406	3.40E-06	473	4.94E-05	540	1.74E-04	607	2.42E-04	674	3.68E-05	741	3.80E-06
407	3.80E-06	474	4.86E-05	541	1.76E-04	608	3.04E-04	675	3.49E-05	742	3.70E-06
408	4.50E-06	475	4.82E-05	542	1.76E-04	609	3.26E-04	676	3.34E-05	743	3.70E-06
409	5.00E-06	476	4.74E-05	543	1.78E-04	610	2.72E-04	677	3.20E-05	744	3.70E-06
410	5.20E-06	477	4.77E-05	544	1.79E-04	611	2.58E-04	678	3.13E-05	745	3.50E-06
411	6.30E-06	478	4.82E-05	545	1.81E-04	612	3.66E-04	679	3.01E-05	746	3.40E-06
412	7.40E-06	479	4.80E-05	546	1.81E-04	613	5.18E-04	680	2.86E-05	747	3.20E-06
413	7.40E-06	480	4.90E-05	547	1.82E-04	614	4.80E-04	681	2.75E-05	748	3.20E-06
414	8.70E-06	481	4.98E-05	548	1.84E-04	615	3.34E-04	682	2.68E-05	749	3.00E-06
415	9.60E-06	482	5.08E-05	549	1.85E-04	616	2.53E-04	683	2.57E-05	750	2.90E-06
416	1.13E-05	483	5.22E-05	550	1.86E-04	617	2.31E-04	684	2.53E-05	751	2.80E-06
417	1.18E-05	484	5.44E-05	551	1.88E-04	618	2.29E-04	685	2.43E-05	752	3.00E-06
418	1.35E-05	485	5.56E-05	552	1.89E-04	619	2.32E-04	686	2.36E-05	753	3.00E-06
419	1.42E-05	486	5.83E-05	553	1.91E-04	620	2.26E-04	687	2.30E-05	754	2.50E-06
420	1.62E-05	487	6.11E-05	554	1.93E-04	621	2.18E-04	688	2.22E-05	755	2.60E-06
421	1.76E-05	488	6.38E-05	555	1.95E-04	622	2.14E-04	689	2.14E-05	756	2.30E-06
422	1.98E-05	489	6.62E-05	556	1.96E-04	623	2.18E-04	690	2.06E-05	757	2.50E-06
423	2.16E-05	490	6.97E-05	557	1.97E-04	624	2.25E-04	691	1.99E-05	758	2.40E-06
424	2.42E-05	491	7.28E-05	558	1.98E-04	625	2.31E-04	692	1.93E-05	759	2.30E-06
425	2.67E-05	492	7.54E-05	559	2.00E-04	626	2.33E-04	693	1.87E-05	760	2.20E-06
426	2.97E-05	493	7.92E-05	560	2.01E-04	627	2.39E-04	694	1.81E-05	761	2.20E-06
427	3.26E-05	494	8.24E-05	561	2.02E-04	628	2.74E-04	695	1.74E-05	762	2.10E-06
428	3.57E-05	495	8.59E-05	562	2.04E-04	629	4.63E-04	696	1.69E-05	763	2.00E-06
429	3.97E-05	496	8.96E-05	563	2.04E-04	630	8.65E-04	697	1.63E-05	764	2.00E-06
430	4.31E-05	497	9.31E-05	564	2.06E-04	631	9.61E-04	698	1.58E-05	765	1.70E-06
431	4.71E-05	498	9.73E-05	565	2.08E-04	632	6.17E-04	699	1.51E-05	766	2.00E-06
432	5.20E-05	499	1.00E-04	566	2.08E-04	633	3.92E-04	700	1.47E-05	767	2.00E-06
433	5.64E-05	500	1.04E-04	567	2.11E-04	634	5.49E-04	701	1.44E-05	768	1.60E-06
434	6.05E-05	501	1.07E-04	568	2.12E-04	635	7.00E-04	702	1.39E-05	769	1.60E-06
435	6.69E-05	502	1.11E-04	569	2.13E-04	636	4.77E-04	703	1.33E-05	770	1.70E-06
436	7.41E-05	503	1.14E-04	570	2.14E-04	637	2.52E-04	704	1.29E-05	771	1.50E-06
437	8.03E-05	504	1.17E-04	571	2.14E-04	638	1.73E-04	705	1.24E-05	772	1.50E-06
438	8.87E-05	505	1.21E-04	572	2.16E-04	639	1.44E-04	706	1.23E-05	773	1.40E-06
439	9.84E-05	506	1.24E-04	573	2.17E-04	640	1.30E-04	707	1.17E-05	774	1.40E-06
440	1.08E-04	507	1.26E-04	574	2.19E-04	641	1.21E-04	708	1.15E-05	775	1.60E-06
441	1.19E-04	508	1.29E-04	575	2.18E-04	642	1.16E-04	709	1.08E-05	776	1.40E-06
442	1.29E-04	509	1.31E-04	576	2.17E-04	643	1.12E-04	710	1.07E-05	777	1.30E-06
443	1.37E-04	510	1.34E-04	577	2.18E-04	644	1.10E-04	711	1.03E-05	778	1.20E-06
444	1.46E-04	511	1.36E-04	578	2.18E-04	645	1.13E-04	712	1.00E-05	779	1.10E-06
445	1.51E-04	512	1.39E-04	579	2.18E-04	646	1.56E-04	713	9.70E-06	780	1.10E-06
446	1.58E-04	513	1.41E-04	580	2.18E-04	647	2.38E-04	714	9.40E-06	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @40W3000K	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	0.322	38.1	0.986
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

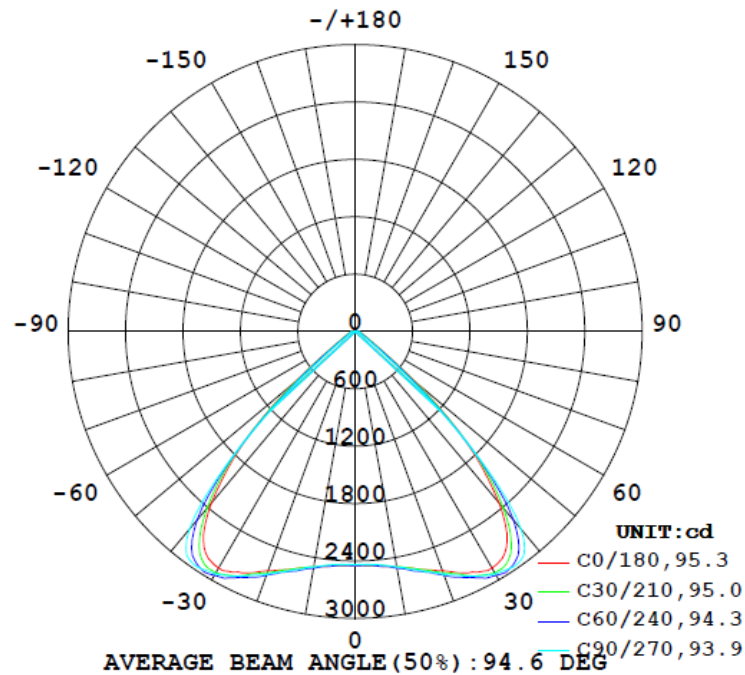
Test Result

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°)
5808	93.6	108.0	68.0	90.3	152.4	99.4%

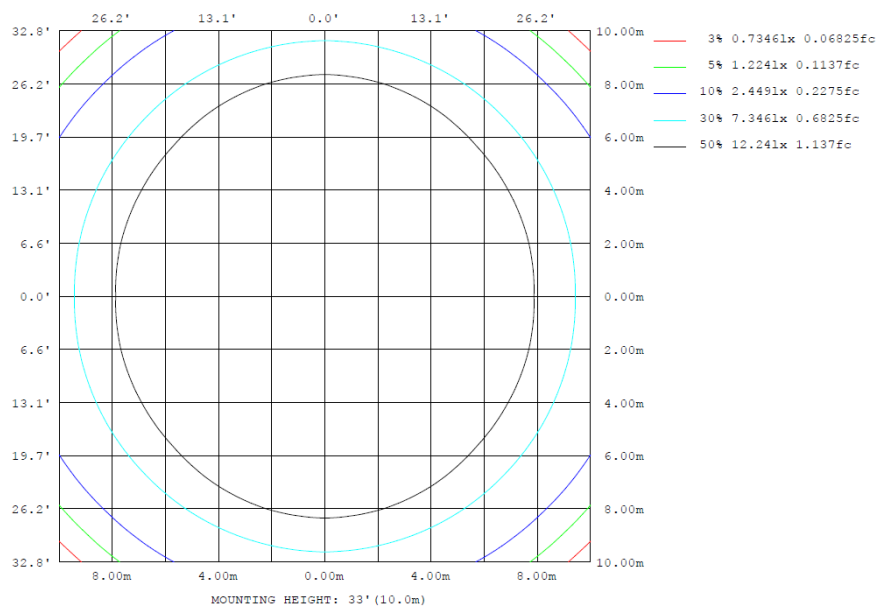
4.2 Goniophotometer Test

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	# zone	# total	%lum, lamp
10	2496	2490	2498	2490	2496	2490	2498	2490	0- 10	236.0	236.0	4.06, 4.06
20	2662	2686	2701	2686	2662	2686	2701	2686	10- 20	736.2	972.1	16.7, 16.7
30	2856	2912	2927	2912	2856	2912	2927	2912	20- 30	1307	2279	39.2, 39.2
40	2340	2454	2698	2454	2340	2454	2698	2454	30- 40	1765	4044	69.6, 69.6
50	823.9	725.7	599.4	725.7	823.9	725.7	599.4	725.7	40- 50	1261	5305	91.3, 91.3
60	171.1	147.5	101.6	147.5	171.1	147.5	101.6	147.5	50- 60	289.3	5594	96.3, 96.3
70	85.47	72.31	57.63	72.31	85.47	72.31	57.63	72.31	60- 70	99.69	5694	98.98
80	29.37	40.83	36.09	40.83	29.37	40.83	36.09	40.83	70- 80	54.66	5749	99.99
90	2.804	18.73	23.65	18.73	2.804	18.73	23.65	18.73	80- 90	27.17	5776	99.4, 99.4
100	2.516	7.601	17.42	7.601	2.516	7.601	17.42	7.601	90-100	10.98	5787	99.6, 99.6
110	4.003	1.498	6.867	1.498	4.003	1.498	6.867	1.498	100-110	4.745	5792	99.7, 99.7
120	8.844	1.311	1.050	1.311	8.844	1.311	1.050	1.311	110-120	2.333	5794	99.8, 99.8
130	9.879	1.687	1.332	1.687	9.879	1.687	1.332	1.687	120-130	2.264	5796	99.8, 99.8
140	9.879	3.461	2.761	3.461	9.879	3.461	2.761	3.461	130-140	2.964	5799	99.8, 99.8
150	11.18	4.496	3.713	4.496	11.18	4.496	3.713	4.496	140-150	3.395	5803	99.9, 99.9
160	9.879	4.587	3.808	4.587	9.879	4.587	3.808	4.587	150-160	2.705	5805	99.9, 99.9
170	19.18	7.208	5.705	7.208	19.18	7.208	5.705	7.208	160-170	2.062	5807	100, 100
180	19.94	7.676	6.475	7.676	19.94	7.676	6.475	7.676	170-180	0.9183	5808	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	235.96	0-10	235.96	4.06%
10-20	736.17	0-20	972.13	16.74%
20-30	1306.78	0-30	2278.91	39.24%
30-40	1764.83	0-40	4043.74	69.63%
40-50	1261.47	0-50	5305.21	91.35%
50-60	289.27	0-60	5594.48	96.33%
60-70	99.69	0-70	5694.17	98.05%
70-80	54.66	0-80	5748.83	98.99%
80-90	27.17	0-90	5776.00	99.46%
90-100	10.98	0-100	5786.98	99.65%
100-110	4.74	0-110	5791.72	99.73%
110-120	2.33	0-120	5794.05	99.77%
120-130	2.26	0-130	5796.31	99.81%
130-140	2.96	0-140	5799.27	99.86%
140-150	3.39	0-150	5802.66	99.92%
150-160	2.71	0-160	5805.37	99.96%
160-170	2.06	0-170	5807.43	100.00%
170-180	0.92	0-180	5808.35	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
0	2444	2449	2440	2443	2446	2444	2437	2444	2446	2443	2440	2449	2444	2449	2440	2443	2446	2444	2437
5	2460	2469	2455	2451	2459	2456	2446	2456	2459	2451	2455	2469	2460	2469	2455	2451	2459	2456	2446
10	2496	2507	2500	2490	2514	2509	2498	2509	2514	2490	2500	2507	2496	2507	2500	2490	2514	2509	2498
15	2575	2575	2571	2571	2596	2596	2587	2596	2596	2571	2571	2575	2575	2575	2571	2571	2596	2596	2587
20	2662	2676	2686	2686	2711	2713	2701	2713	2711	2686	2686	2676	2662	2676	2686	2686	2711	2713	2701
25	2785	2808	2818	2816	2836	2845	2822	2845	2836	2816	2818	2808	2785	2808	2818	2816	2836	2845	2822
30	2856	2896	2915	2912	2945	2945	2927	2945	2945	2912	2915	2896	2856	2896	2915	2912	2945	2945	2927
35	2756	2805	2836	2858	2924	2968	2961	2968	2924	2858	2836	2805	2756	2805	2836	2858	2924	2968	2961
40	2340	2383	2409	2454	2574	2659	2698	2659	2574	2454	2409	2383	2340	2383	2409	2454	2574	2659	2698
45	1660	1679	1687	1677	1689	1687	1704	1687	1689	1677	1687	1679	1660	1679	1687	1677	1689	1687	1704
50	824	817	782	726	711	636	599	636	711	726	782	817	824	817	782	726	711	636	599
55	318	321	299	277	260	223	201	223	260	277	299	321	318	321	299	277	260	223	201
60	171	175	160	147	133	115	102	115	133	147	160	175	171	175	160	147	133	115	102
65	118	118	109	99.9	88.1	75.3	69.4	75.3	88.1	99.9	109	118	118	109	99.9	88.1	75.3	69.4	75.3
70	85.5	84.6	80.1	72.3	64.7	56.0	57.6	56.0	64.7	72.3	80.1	84.6	85.5	84.6	80.1	72.3	64.7	56.0	57.6
75	65.7	53.6	53.8	51.5	47.6	41.4	42.8	41.4	47.6	51.5	53.6	53.6	65.7	53.6	53.8	51.5	47.6	41.4	42.8
80	29.4	30.4	38.3	40.8	43.3	39.7	36.1	39.7	43.3	40.8	38.3	30.4	29.4	30.4	38.3	40.8	43.3	39.7	36.1
85	14.5	18.3	24.9	24.7	25.2	23.3	37.2	23.3	25.2	24.7	24.9	18.3	14.5	18.3	24.9	24.7	25.2	23.3	37.2
90	2.80	8.59	20.8	18.7	15.5	15.2	23.6	15.2	15.5	18.7	20.8	8.59	2.80	8.59	20.8	18.7	15.5	15.2	23.6
95	2.52	3.49	8.44	9.67	10.6	11.6	19.1	11.6	10.6	9.67	8.44	3.49	2.52	3.49	8.44	9.67	10.6	11.6	19.1
100	2.52	1.98	3.66	7.60	10.8	13.8	17.4	13.8	10.8	7.60	3.66	1.98	2.52	1.98	3.66	7.60	10.8	13.8	17.4
105	2.79	1.98	1.88	2.34	4.09	6.96	10.0	6.96	4.09	2.34	1.88	1.98	2.79	1.98	1.88	2.34	4.09	6.96	10.0
110	4.00	1.98	1.69	1.50	2.19	4.58	6.87	4.58	2.19	1.50	1.69	1.98	4.00	1.98	1.69	1.50	2.19	4.58	6.87
115	6.88	1.98	1.69	1.40	1.23	2.10	3.35	2.10	1.23	1.40	1.69	1.98	6.88	1.98	1.69	1.40	1.23	2.10	3.35
120	8.84	3.01	1.69	1.31	1.14	1.05	1.05	1.14	1.31	1.69	3.01	8.84	3.01	1.69	1.31	1.14	1.05	1.05	1.14
125	9.88	4.14	1.69	1.31	1.14	1.14	1.05	1.14	1.31	1.69	4.14	9.88	4.14	1.69	1.31	1.14	1.14	1.05	1.14
130	9.88	5.36	2.34	1.69	1.42	1.33	1.33	1.42	1.69	2.34	5.36	9.88	5.36	2.34	1.69	1.42	1.33	1.33	1.42
135	9.88	6.77	3.09	2.62	2.56	2.47	2.00	2.47	2.56	2.62	3.09	6.77	9.88	6.77	3.09	2.62	2.56	2.47	2.00
140	9.88	7.72	4.03	3.46	3.31	3.23	2.76	3.23	3.31	3.46	4.03	7.72	9.88	7.72	4.03	3.46	3.31	3.23	2.76
145	10.4	8.75	4.97	4.21	4.17	4.09	3.33	4.09	4.17	4.21	4.97	8.75	10.4	8.75	4.97	4.21	4.17	4.09	3.33
150	11.2	9.13	5.53	4.50	4.46	4.47	3.71	4.47	4.46	4.50	5.53	9.13	11.2	9.13	5.53	4.50	4.46	4.47	3.71
155	10.5	9.13	5.44	4.59	4.46	4.48	3.71	4.48	4.46	4.59	5.44	9.13	10.5	9.13	5.44	4.59	4.46	4.48	3.71
160	9.88	8.66	5.35	4.59	4.46	4.48	3.81	4.48	4.46	4.59	5.35	8.66	9.88	8.66	5.35	4.59	4.46	4.48	3.81
165	14.7	12.0	6.93	5.80	5.59	5.52	4.85	5.52	5.59	5.80	6.93	12.0	14.7	12.0	6.93	5.80	5.59	5.52	4.85
170	19.2	14.2	8.25	7.21	6.54	6.38	5.71	6.38	6.54	7.21	8.25	14.2	19.2	14.2	8.25	7.21	6.54	6.38	5.71
175	19.9	14.9	8.81	7.77	7.40	7.23	6.09	7.23	7.40	7.77	8.81	14.9	19.9	14.9	8.81	7.77	7.40	7.23	6.09
180	19.9	14.8	8.72	7.68	7.40	7.24	6.47	7.24	7.40	7.68	8.72	14.8	19.9	14.8	8.72	7.68	7.40	7.24	6.47

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
0	2444	2446	2443	2440	2449														
5	2456	2459	2451	2455	2469														
10	2509	2514	2490	2500	2507														
15	2596	2596	2571	2571	2575														
20	2713	2711	2686	2686	2676														
25	2845	2836	2816	2818	2808														
30	2945	2945	2912	2915	2896														
35	2968	2924	2858	2836	2805														
40	2659	2574	2454	2409	2383														
45	1687	1689	1677	1687	1679														
50	636	711	726	782	817														
55	223	260	277	299	321														
60	115	133	147	160	175														
65	75.3	88.1	99.9	109	118														
70	56.0	64.7	72.3	80.1	84.6														
75	41.4	47.6	51.5	53.8	53.6														
80	39.7	43.3	40.8	38.3	30.4														
85	23.3	25.2	24.7	24.9	18.3														
90	15.2	15.5	18.7	20.8	8.59														
95	11.6	10.6	9.67	8.44	3.49														
100	13.8	10.8	7.60	3.66	1.98														
105	6.96	4.09	2.34	1.88	1.98														
110	4.58	2.19	1.50	1.69	1.98														
115	2.10	1.23	1.40	1.69	1.98														
120	1.05	1.14	1.31	1.69	3.01														
125	1.14	1.14	1.31	1.69	4.14														
130	1.33	1.42	1.69	2.34	5.36														
135	2.47	2.56	2.62	3.09	6.77														
140	3.23	3.31	3.46	4.03	7.72														
145	4.09	4.17	4.21	4.97	8.75														
150	4.47	4.46	4.50	5.53	9.13														
155	4.48	4.46	4.59	5.44	9.13														
160	4.48	4.46	4.59	5.35	8.66														
165	5.52	5.59	5.80	6.93	12.0														
170	6.38	6.54	7.21	8.25	14.2														
175	7.23	7.40	7.77	8.81	14.9														
180	7.24	7.40	7.68	8.72	14.8														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @40W3000K	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	0.322	38.1	0.986	9.75

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*****