

Photometric Test Report

Relevant Standards

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

Prepared For

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Issue Date: 2025-09-25

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		3422
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	144.4
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		23.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.68
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	4010
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		94.7
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		85
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		0.199
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		23.7
(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	2025-09-16	TKBEAM2B @22W4000K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @22W4000K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @22W4000K	-	250903025-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. TKBEAM2B @22W4000K, 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.	TKBEAM2B @22W4000K	Sample ID	250903025-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

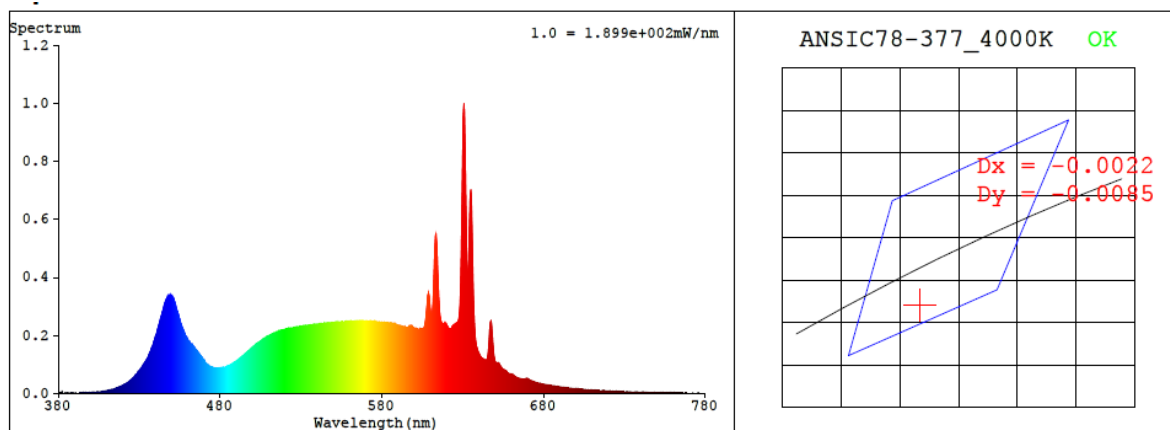
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.199	23.7	0.991

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4010	94.7	85	-0.0034	4.7	91	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3778$ $y = 0.3680$ / $u' = 0.2269$ $v' = 0.4973$ ($duv = -3.41e-03$)

CCT= 4010K Prp WL: Ld=581.2nm Purity=23.8%

Peak WL: Lp=631nm FWHM: =3.6nm Ratio:R=21.0% G=75.3% B=3.8%

Render Index: Ra = 94.7 AvgR = 92.5 TM30:Rf=91 Rg=104

EEL: 0.09974 A++ Highest

R1 =99 R2 =95 R3 =90 R4 =93 R5 =97 R6 =93 R7 =95

R8 =95 R9 =85 R10=86 R11=92 R12=78 R13=98 R14=93 R15=98

4.1 Integrating Sphere Test

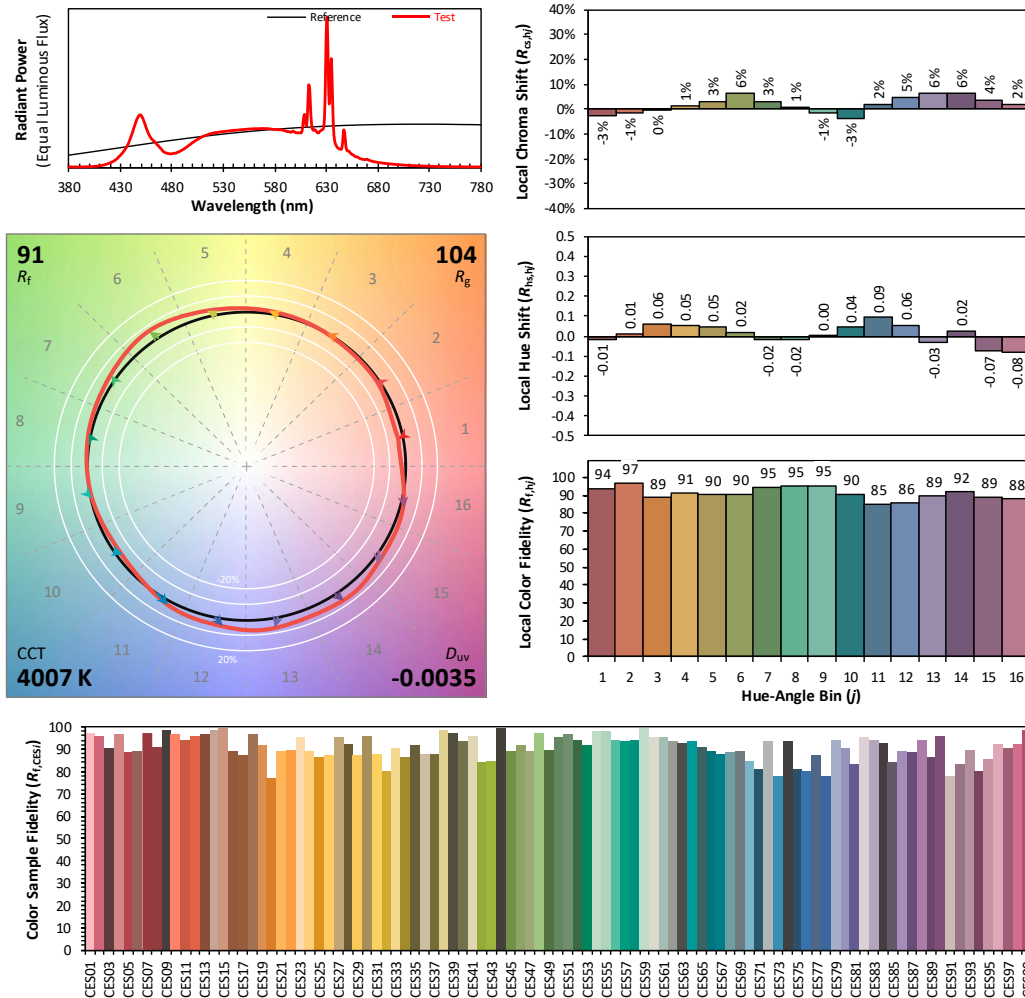
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @22W4000K



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

x 0.3778
 y 0.3678
 u' 0.2270
 v' 0.4972

CIE 13.3-1995
(CRI)

R_a 95
 R_g 86

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	3.10E-06	447	3.24E-04	514	2.08E-04	581	2.44E-04	648	2.23E-04	715	1.03E-05
381	1.20E-06	448	3.35E-04	515	2.11E-04	582	2.43E-04	649	1.47E-04	716	1.01E-05
382	2.60E-06	449	3.39E-04	516	2.14E-04	583	2.44E-04	650	1.11E-04	717	9.90E-06
383	6.00E-07	450	3.36E-04	517	2.16E-04	584	2.42E-04	651	1.05E-04	718	9.40E-06
384	1.70E-06	451	3.25E-04	518	2.17E-04	585	2.42E-04	652	1.05E-04	719	9.20E-06
385	1.80E-06	452	3.11E-04	519	2.19E-04	586	2.42E-04	653	9.70E-05	720	8.60E-06
386	1.60E-06	453	2.92E-04	520	2.20E-04	587	2.41E-04	654	8.85E-05	721	8.50E-06
387	1.40E-06	454	2.74E-04	521	2.23E-04	588	2.41E-04	655	8.33E-05	722	8.20E-06
388	9.00E-07	455	2.53E-04	522	2.24E-04	589	2.37E-04	656	8.10E-05	723	8.10E-06
389	1.60E-06	456	2.37E-04	523	2.24E-04	590	2.35E-04	657	7.61E-05	724	7.80E-06
390	1.80E-06	457	2.20E-04	524	2.25E-04	591	2.34E-04	658	7.00E-05	725	7.50E-06
391	1.90E-06	458	2.06E-04	525	2.26E-04	592	2.32E-04	659	6.76E-05	726	7.40E-06
392	1.80E-06	459	1.95E-04	526	2.28E-04	593	2.30E-04	660	6.71E-05	727	7.20E-06
393	2.30E-06	460	1.85E-04	527	2.29E-04	594	2.31E-04	661	6.39E-05	728	6.80E-06
394	2.70E-06	461	1.79E-04	528	2.29E-04	595	2.27E-04	662	5.90E-05	729	6.70E-06
395	2.60E-06	462	1.71E-04	529	2.30E-04	596	2.27E-04	663	5.58E-05	730	6.50E-06
396	2.80E-06	463	1.67E-04	530	2.30E-04	597	2.32E-04	664	5.38E-05	731	6.10E-06
397	3.20E-06	464	1.59E-04	531	2.31E-04	598	2.34E-04	665	5.18E-05	732	6.00E-06
398	2.90E-06	465	1.50E-04	532	2.32E-04	599	2.29E-04	666	5.06E-05	733	5.60E-06
399	3.10E-06	466	1.44E-04	533	2.33E-04	600	2.25E-04	667	4.96E-05	734	5.80E-06
400	3.40E-06	467	1.37E-04	534	2.34E-04	601	2.24E-04	668	4.88E-05	735	5.50E-06
401	4.00E-06	468	1.29E-04	535	2.34E-04	602	2.23E-04	669	5.08E-05	736	5.20E-06
402	3.70E-06	469	1.22E-04	536	2.35E-04	603	2.22E-04	670	5.15E-05	737	5.20E-06
403	4.40E-06	470	1.15E-04	537	2.37E-04	604	2.23E-04	671	4.77E-05	738	5.20E-06
404	5.00E-06	471	1.05E-04	538	2.37E-04	605	2.22E-04	672	4.46E-05	739	4.60E-06
405	5.50E-06	472	9.95E-05	539	2.38E-04	606	2.25E-04	673	4.21E-05	740	4.60E-06
406	6.00E-06	473	9.57E-05	540	2.38E-04	607	2.53E-04	674	3.97E-05	741	4.70E-06
407	6.50E-06	474	9.26E-05	541	2.39E-04	608	3.17E-04	675	3.81E-05	742	4.60E-06
408	7.50E-06	475	9.10E-05	542	2.40E-04	609	3.42E-04	676	3.64E-05	743	4.10E-06
409	8.50E-06	476	8.92E-05	543	2.39E-04	610	2.87E-04	677	3.50E-05	744	4.30E-06
410	9.50E-06	477	8.76E-05	544	2.41E-04	611	2.69E-04	678	3.42E-05	745	4.00E-06
411	1.09E-05	478	8.68E-05	545	2.41E-04	612	3.74E-04	679	3.26E-05	746	4.10E-06
412	1.17E-05	479	8.70E-05	546	2.42E-04	613	5.31E-04	680	3.13E-05	747	3.90E-06
413	1.36E-05	480	8.76E-05	547	2.43E-04	614	5.02E-04	681	3.04E-05	748	3.80E-06
414	1.44E-05	481	8.85E-05	548	2.43E-04	615	3.54E-04	682	2.95E-05	749	3.60E-06
415	1.64E-05	482	9.02E-05	549	2.44E-04	616	2.68E-04	683	2.87E-05	750	3.40E-06
416	1.89E-05	483	9.03E-05	550	2.44E-04	617	2.43E-04	684	2.79E-05	751	3.50E-06
417	2.11E-05	484	9.19E-05	551	2.45E-04	618	2.39E-04	685	2.67E-05	752	3.40E-06
418	2.36E-05	485	9.53E-05	552	2.45E-04	619	2.43E-04	686	2.58E-05	753	3.10E-06
419	2.58E-05	486	9.77E-05	553	2.46E-04	620	2.36E-04	687	2.52E-05	754	3.30E-06
420	2.85E-05	487	1.00E-04	554	2.46E-04	621	2.27E-04	688	2.41E-05	755	3.00E-06
421	3.22E-05	488	1.04E-04	555	2.47E-04	622	2.22E-04	689	2.36E-05	756	3.00E-06
422	3.47E-05	489	1.08E-04	556	2.48E-04	623	2.25E-04	690	2.27E-05	757	2.70E-06
423	3.83E-05	490	1.11E-04	557	2.48E-04	624	2.33E-04	691	2.21E-05	758	2.70E-06
424	4.24E-05	491	1.15E-04	558	2.49E-04	625	2.38E-04	692	2.16E-05	759	2.80E-06
425	4.70E-05	492	1.20E-04	559	2.49E-04	626	2.42E-04	693	2.08E-05	760	2.60E-06
426	5.22E-05	493	1.24E-04	560	2.48E-04	627	2.46E-04	694	1.99E-05	761	2.70E-06
427	5.73E-05	494	1.29E-04	561	2.50E-04	628	2.81E-04	695	1.98E-05	762	2.60E-06
428	6.52E-05	495	1.34E-04	562	2.49E-04	629	4.64E-04	696	1.86E-05	763	2.40E-06
429	7.14E-05	496	1.39E-04	563	2.50E-04	630	8.56E-04	697	1.82E-05	764	2.10E-06
430	7.83E-05	497	1.44E-04	564	2.49E-04	631	9.71E-04	698	1.77E-05	765	2.30E-06
431	8.61E-05	498	1.49E-04	565	2.50E-04	632	6.46E-04	699	1.73E-05	766	2.30E-06
432	9.36E-05	499	1.54E-04	566	2.50E-04	633	4.09E-04	700	1.67E-05	767	2.10E-06
433	1.03E-04	500	1.59E-04	567	2.49E-04	634	5.49E-04	701	1.64E-05	768	2.20E-06
434	1.11E-04	501	1.63E-04	568	2.51E-04	635	7.03E-04	702	1.52E-05	769	2.10E-06
435	1.21E-04	502	1.68E-04	569	2.50E-04	636	4.96E-04	703	1.51E-05	770	2.00E-06
436	1.33E-04	503	1.73E-04	570	2.50E-04	637	2.67E-04	704	1.45E-05	771	1.80E-06
437	1.45E-04	504	1.77E-04	571	2.50E-04	638	1.82E-04	705	1.42E-05	772	1.80E-06
438	1.59E-04	505	1.81E-04	572	2.50E-04	639	1.51E-04	706	1.36E-05	773	1.80E-06
439	1.77E-04	506	1.84E-04	573	2.50E-04	640	1.37E-04	707	1.33E-05	774	1.90E-06
440	1.96E-04	507	1.89E-04	574	2.49E-04	641	1.27E-04	708	1.27E-05	775	1.90E-06
441	2.13E-04	508	1.92E-04	575	2.48E-04	642	1.21E-04	709	1.24E-05	776	1.70E-06
442	2.34E-04	509	1.97E-04	576	2.47E-04	643	1.18E-04	710	1.19E-05	777	1.70E-06
443	2.56E-04	510	1.98E-04	577	2.47E-04	644	1.15E-04	711	1.15E-05	778	1.50E-06
444	2.74E-04	511	2.01E-04	578	2.45E-04	645	1.18E-04	712	1.12E-05	779	1.40E-06
445	2.95E-04	512	2.04E-04	579	2.45E-04	646	1.60E-04	713	1.08E-05	780	1.40E-06
446	3.13E-04	513	2.07E-04	580	2.45E-04	647	2.41E-04	714	1.08E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM2B @22W4000K	Sample ID	250903025-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	Humidity (%RH)	40.8

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	0.199	23.7	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

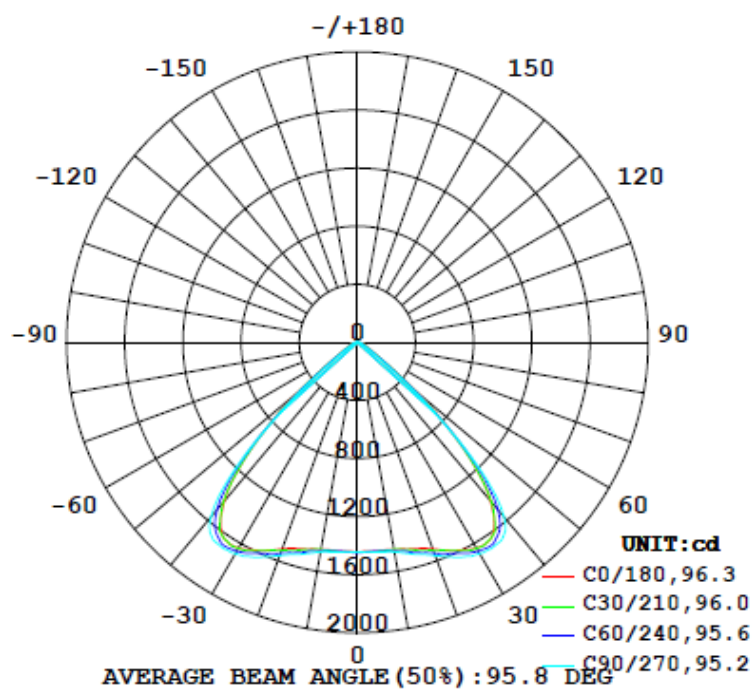
Test Result

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°)
3422	96.0	109.3	70.5	93.3	144.4	99.4%

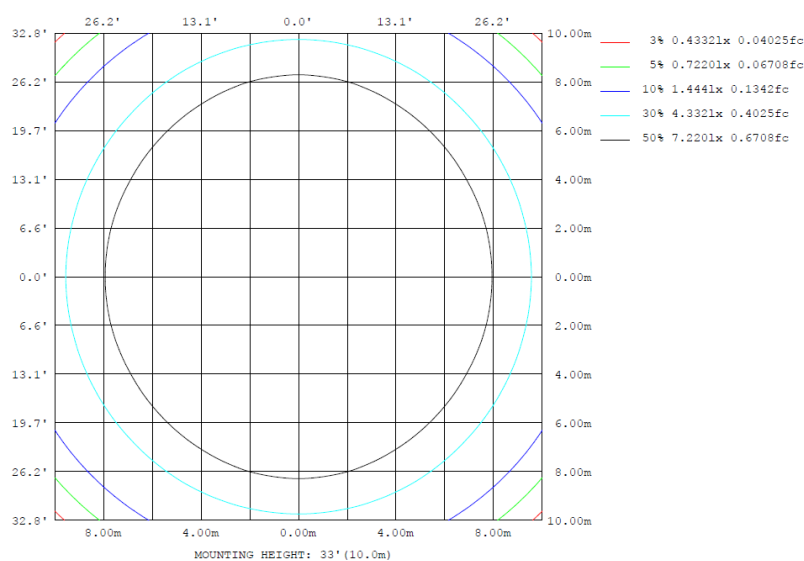
4.2 Goniophotometer Test

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	Φ zone	Φ total	%lum, lamp
10	1449	1455	1465	1455	1449	1455	1465	1455	0- 10	138.1	138.1	4.04, 4.04
20	1514	1533	1564	1533	1514	1533	1564	1533	10- 20	423.4	561.5	16.4, 16.4
30	1635	1654	1678	1654	1635	1654	1678	1654	20- 30	740.7	1302	38.1, 38.1
40	1425	1456	1568	1456	1425	1456	1568	1456	30- 40	1015	2317	67.7, 67.7
50	536.4	499.4	428.3	499.4	536.4	499.4	428.3	499.4	40- 50	783.0	3100	90.6, 90.6
60	106.4	94.13	65.66	94.13	106.4	94.13	65.66	94.13	50- 60	193.3	3294	96.3, 96.3
70	50.93	43.68	32.81	43.68	50.93	43.68	32.81	43.68	60- 70	60.55	3354	98, 98
80	16.00	21.25	19.90	21.25	16.00	21.25	19.90	21.25	70- 80	32.06	3386	99, 99
90	2.597	10.14	11.29	10.14	2.597	10.14	11.29	10.14	80- 90	14.82	3401	99.4, 99.4
100	2.018	4.552	9.376	4.552	2.018	4.552	9.376	4.552	90-100	6.217	3407	99.6, 99.6
110	1.633	1.139	4.175	1.139	1.633	1.139	4.175	1.139	100-110	3.043	3410	99.7, 99.7
120	3.158	1.137	0.9500	1.137	3.158	1.137	0.9500	1.137	110-120	1.506	3412	99.7, 99.7
130	6.045	1.232	1.134	1.232	6.045	1.232	1.134	1.232	120-130	1.340	3413	99.8, 99.8
140	8.161	2.651	2.638	2.651	8.161	2.651	2.638	2.651	130-140	1.950	3415	99.8, 99.8
150	8.935	3.507	3.127	3.507	8.935	3.507	3.127	3.507	140-150	2.468	3418	99.9, 99.9
160	8.935	3.507	3.127	3.507	8.935	3.507	3.127	3.507	150-160	1.948	3420	99.9, 99.9
170	13.06	5.587	4.640	5.587	13.06	5.587	4.640	5.587	160-170	1.463	3421	100, 100
180	13.55	5.876	5.117	5.876	13.55	5.876	5.117	5.876	170-180	0.6619	3422	100, 100
DEG	LUMINOUS INTENSITY: cd									UNIT: lm		

	Zonal (lm)		Total (lm)	Percent
0-10	138.13	0-10	138.13	4.04%
10-20	423.37	0-20	561.50	16.41%
20-30	740.75	0-30	1302.25	38.07%
30-40	1015.11	0-40	2317.36	67.74%
40-50	783.05	0-50	3100.41	90.63%
50-60	193.31	0-60	3293.72	96.28%
60-70	60.55	0-70	3354.27	98.05%
70-80	32.06	0-80	3386.33	98.98%
80-90	14.82	0-90	3401.15	99.42%
90-100	6.22	0-100	3407.37	99.60%
100-110	3.04	0-110	3410.41	99.69%
110-120	1.51	0-120	3411.92	99.73%
120-130	1.34	0-130	3413.26	99.77%
130-140	1.95	0-140	3415.21	99.83%
140-150	2.47	0-150	3417.68	99.90%
150-160	1.95	0-160	3419.63	99.96%
160-170	1.46	0-170	3421.09	100.00%
170-180	0.66	0-180	3421.75	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	1444	1441	1446	1445	1447	1443	1445	1443	1447	1445	1446	1441	1444	1441	1446	1445	1447	1443	1445
5	1444	1438	1447	1444	1443	1445	1448	1445	1443	1444	1447	1438	1444	1438	1447	1444	1443	1445	1448
10	1449	1445	1448	1455	1459	1465	1465	1465	1459	1455	1448	1445	1449	1445	1448	1455	1459	1465	1465
15	1471	1464	1478	1492	1498	1500	1511	1500	1498	1492	1478	1464	1471	1464	1478	1492	1498	1500	1511
20	1514	1521	1524	1533	1546	1551	1564	1551	1546	1533	1524	1521	1514	1521	1524	1533	1546	1551	1564
25	1581	1588	1593	1594	1600	1617	1630	1617	1600	1594	1588	1581	1588	1593	1594	1600	1617	1630	1637
30	1635	1637	1638	1654	1661	1669	1678	1669	1661	1654	1638	1637	1635	1637	1638	1654	1661	1669	1678
35	1622	1621	1623	1644	1656	1678	1687	1678	1656	1644	1623	1621	1622	1621	1623	1644	1656	1678	1687
40	1425	1422	1438	1456	1501	1553	1568	1553	1501	1456	1438	1422	1425	1422	1438	1456	1501	1553	1568
45	1031	1024	1031	1040	1066	1078	1086	1078	1066	1040	1031	1024	1031	1024	1031	1040	1066	1078	1086
50	536	524	518	499	486	444	428	444	486	499	518	524	536	524	518	499	486	444	428
55	202	204	197	187	177	155	143	155	177	187	197	204	202	204	197	187	177	155	143
60	106	108	101	94.1	84.1	72.0	65.7	72.0	84.1	94.1	101	108	106	108	101	94.1	84.1	72.0	65.7
65	72.9	70.7	66.5	60.9	52.6	44.6	41.6	44.6	52.6	60.9	66.5	70.7	72.9	70.7	66.5	60.9	52.6	44.6	41.6
70	50.9	51.8	48.6	43.7	37.6	32.3	32.8	32.3	37.6	43.7	48.6	51.8	50.9	51.8	48.6	43.7	37.6	32.3	32.8
75	38.4	33.4	33.0	30.9	27.2	23.4	24.7	23.4	27.2	30.9	33.0	33.4	38.4	33.4	33.0	30.9	27.2	23.4	24.7
80	16.0	18.7	20.6	21.3	23.2	21.1	19.9	21.1	23.2	21.3	20.6	18.7	16.0	18.7	20.6	21.3	23.2	21.1	19.9
85	8.94	10.6	13.9	13.7	14.2	12.9	17.2	12.9	14.2	13.7	13.9	10.6	8.94	10.6	13.9	13.7	14.2	12.9	17.2
90	2.60	5.28	11.4	10.1	8.47	8.39	11.3	8.39	8.47	10.1	11.4	5.28	2.60	5.28	11.4	10.1	8.47	8.39	11.3
95	2.11	2.78	5.03	5.41	5.79	6.64	9.86	6.64	5.79	5.41	5.03	2.78	2.11	2.78	5.03	5.41	5.79	6.64	9.86
100	2.02	1.72	2.57	4.55	5.79	7.78	9.38	7.78	5.79	4.55	2.57	1.72	2.02	1.72	2.57	4.55	5.79	7.78	9.38
105	1.73	1.53	1.52	1.72	2.67	4.46	5.70	4.46	2.67	1.72	1.52	1.53	1.73	1.53	1.52	1.72	2.67	4.46	5.70
110	1.63	1.53	1.33	1.14	1.61	3.04	4.17	3.04	1.61	1.14	1.33	1.53	1.63	1.53	1.33	1.14	1.61	3.04	4.17
115	1.63	1.53	1.33	1.14	1.05	1.71	2.28	1.71	1.05	1.14	1.33	1.53	1.63	1.53	1.33	1.14	1.05	1.71	2.28
120	3.16	1.53	1.33	1.14	0.95	0.95	0.95	0.95	1.14	1.33	1.53	3.16	1.53	1.33	1.14	0.95	0.95	0.95	0.95
125	4.70	1.53	1.33	1.14	0.95	0.95	0.95	0.95	1.14	1.33	1.53	4.70	1.53	1.33	1.14	0.95	0.95	0.95	0.95
130	6.04	2.20	1.42	1.23	1.23	1.04	1.13	1.04	1.23	1.23	1.42	2.20	6.04	2.20	1.42	1.23	1.23	1.04	1.13
135	7.30	2.87	2.27	1.99	1.89	1.71	1.80	1.71	1.89	1.99	2.27	2.87	7.30	2.87	2.27	1.99	1.89	1.71	1.80
140	8.16	3.82	3.03	2.65	2.66	2.37	2.64	2.37	2.66	2.65	3.03	3.82	8.16	3.82	3.03	2.65	2.66	2.37	2.64
145	8.84	4.87	3.89	3.41	3.13	3.04	2.94	3.04	3.13	3.41	3.89	4.87	8.84	4.87	3.89	3.41	3.13	3.04	2.94
150	8.94	5.25	4.08	3.51	3.32	3.23	3.13	3.23	3.32	3.51	4.08	5.25	8.94	5.25	4.08	3.51	3.32	3.23	3.13
155	8.94	5.35	4.08	3.51	3.32	3.23	3.13	3.23	3.32	3.51	4.08	5.35	8.94	5.35	4.08	3.51	3.32	3.23	3.13
160	8.94	4.78	3.89	3.51	3.32	3.23	3.13	3.23	3.32	3.51	3.89	4.78	8.94	4.78	3.89	3.51	3.32	3.23	3.13
165	11.7	7.06	5.12	4.36	4.07	4.08	3.88	4.08	4.07	4.36	5.12	7.06	11.7	7.06	5.12	4.36	4.07	4.08	3.88
170	13.1	8.88	6.54	5.59	4.93	4.84	4.64	4.84	4.93	5.59	6.54	8.88	13.1	8.88	6.54	5.59	4.93	4.84	4.64
175	13.5	9.36	7.20	5.87	5.60	5.22	5.11	5.22	5.60	5.87	7.20	9.36	13.5	9.36	7.20	5.87	5.60	5.22	5.11
180	13.5	9.36	7.11	5.88	5.60	5.22	5.12	5.22	5.60	5.88	7.11	9.36	13.5	9.36	7.11	5.88	5.60	5.22	5.12

Table--2

UNIT: cd

C (DEG) Y (DEG)	285	300	315	330	345														
0	1443	1447	1445	1446	1441														
5	1445	1443	1444	1447	1438														
10	1465	1459	1455	1448	1445														
15	1500	1498	1492	1478	1464														
20	1551	1546	1533	1524	1521														
25	1617	1600	1594	1583	1588														
30	1669	1661	1654	1638	1637														
35	1678	1656	1644	1623	1621														
40	1553	1501	1456	1438	1422														
45	1078	1066	1040	1031	1024														
50	444	486	499	518	524														
55	155	177	187	197	204														
60	72.0	84.1	94.1	101	108														
65	44.6	52.6	60.9	66.5	70.7														
70	32.3	37.6	43.7	48.6	51.8														
75	23.4	27.2	30.9	33.0	33.4														
80	21.1	23.2	21.3	20.6	18.7														
85	12.9	14.2	13.7	13.9	10.6														
90	8.39	8.47	10.1	11.4	5.28														
95	6.64	5.79	5.41	5.03	2.78														
100	7.78	5.79	4.55	2.57	1.72														
105	4.46	2.67	1.72	1.52	1.53														
110	3.04	1.61	1.14	1.33	1.53														
115	1.71	1.05	1.14	1.33	1.53														
120	0.95	0.95	1.14	1.33	1.53														
125	0.95	0.95	1.14	1.33	1.53														
130	1.04	1.23	1.23	1.42	2.20														
135	1.71	1.89	1.99	2.27	2.87														
140	2.37	2.66	2.65	3.03	3.82														
145	3.04	3.13	3.41	3.89	4.87														
150	3.23	3.32	3.51	4.08	5.25														
155	3.23	3.32	3.51	4.08	5.35														
160	3.23	3.32	3.51	3.89	4.78														
165	4.08	4.07	4.36	5.12	7.06														
170	4.84	4.93	5.59	6.54	8.88														
175	5.22	5.60	5.87	7.20	9.36														
180	5.22	5.60	5.88	7.11	9.36														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM2B @22W4000K	Sample ID	250903025-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	0.199	23.7	0.991	9.68

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*****