

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		3420
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	144.3
			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	9.69
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	5029±283	4983
			4 steps	5029±220	
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		84
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		89
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 @22W5000K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @22W5000K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @22W5000K	-	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 @22W5000K, 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 @22W5000K	Sample ID	250903025-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

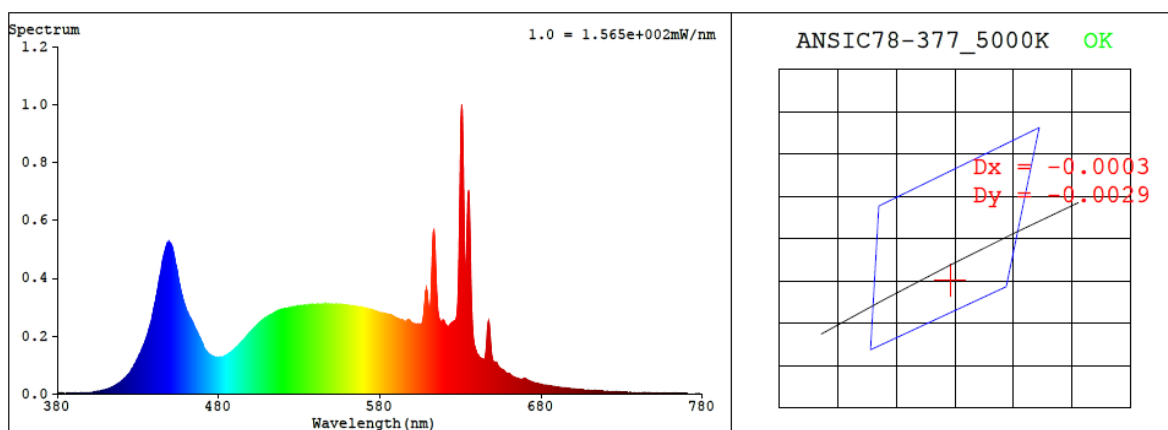
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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
4983	93.1	84	-0.0013	3.5	89	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3453$ $y = 0.3492$ / $u' = 0.2125$ $v' = 0.4835$ ($duv = -1.31e-03$)

CCT= 4983K Prcp WL: Ld=574.6nm Purity=8.4%

Peak WL: Lp=631nm FWHM: =3.7nm Ratio:R=18.1% G=77.3% B=4.5%

Render Index: Ra = 93.1 AvgR = 90.4 TM30:Rf=90 Rg=104

EEI: 0.09997 A++ Highest

R1 =97 R2 =93 R3 =88 R4 =93 R5 =95 R6 =90 R7 =94

R8 =95 R9 =84 R10=81 R11=92 R12=70 R13=95 R14=92 R15=97

4.1 Integrating Sphere Test

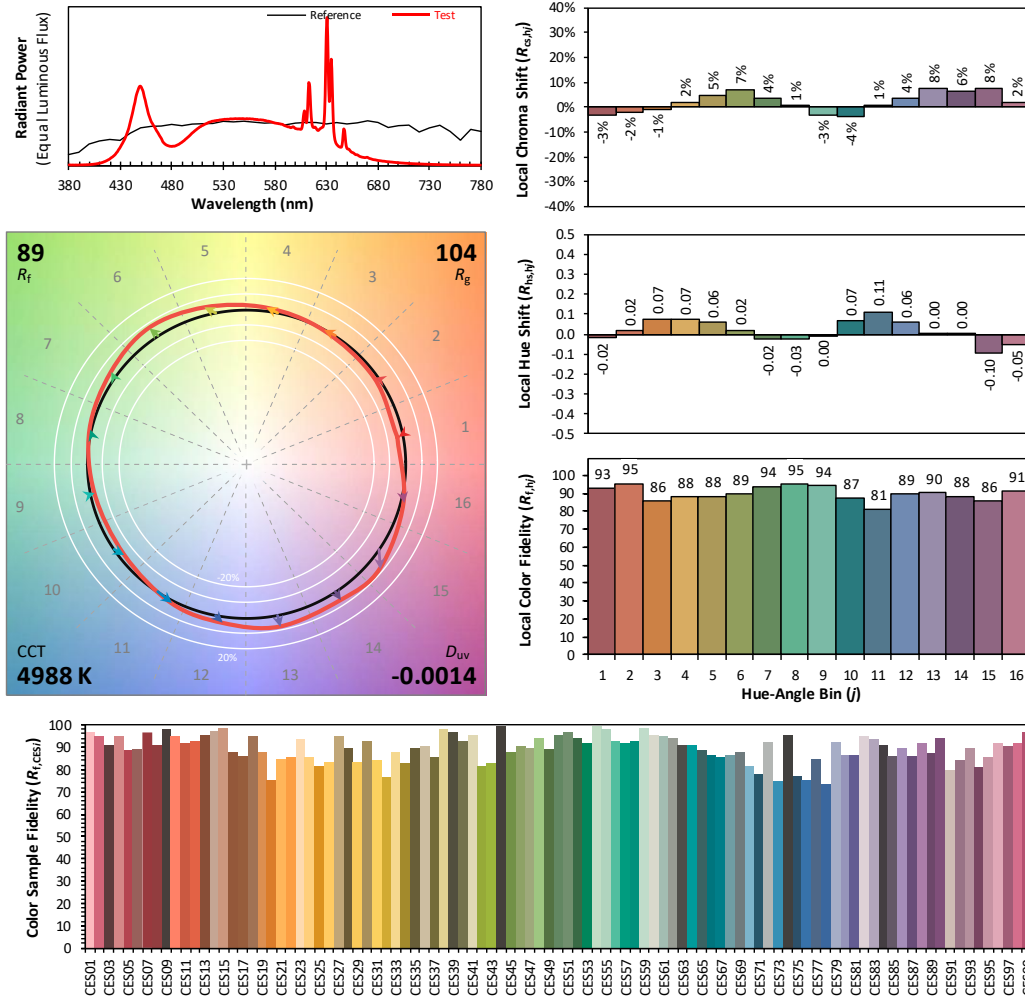
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @22W5000K



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

x 0.3452
 y 0.3490
 u' 0.2125
 v' 0.4834

CIE 13.3-1995
(CRI)

R_a 93
 R_g 84

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	3.50E-06	447	4.99E-04	514	2.79E-04	581	2.80E-04	648	2.28E-04	715	1.12E-05
381	2.90E-06	448	5.18E-04	515	2.82E-04	582	2.79E-04	649	1.53E-04	716	1.09E-05
382	2.10E-06	449	5.25E-04	516	2.86E-04	583	2.78E-04	650	1.16E-04	717	1.04E-05
383	2.70E-06	450	5.20E-04	517	2.88E-04	584	2.76E-04	651	1.08E-04	718	1.04E-05
384	2.60E-06	451	5.06E-04	518	2.89E-04	585	2.76E-04	652	1.08E-04	719	1.02E-05
385	2.10E-06	452	4.89E-04	519	2.93E-04	586	2.73E-04	653	1.00E-04	720	9.60E-06
386	2.60E-06	453	4.57E-04	520	2.93E-04	587	2.73E-04	654	9.18E-05	721	9.50E-06
387	2.60E-06	454	4.32E-04	521	2.95E-04	588	2.70E-04	655	8.68E-05	722	9.10E-06
388	2.00E-06	455	4.01E-04	522	2.96E-04	589	2.66E-04	656	8.43E-05	723	8.80E-06
389	2.80E-06	456	3.74E-04	523	2.97E-04	590	2.63E-04	657	8.01E-05	724	8.70E-06
390	2.50E-06	457	3.45E-04	524	2.98E-04	591	2.61E-04	658	7.41E-05	725	8.20E-06
391	3.30E-06	458	3.25E-04	525	2.98E-04	592	2.58E-04	659	7.07E-05	726	7.80E-06
392	3.10E-06	459	3.05E-04	526	3.00E-04	593	2.55E-04	660	7.06E-05	727	7.80E-06
393	3.30E-06	460	2.88E-04	527	3.02E-04	594	2.56E-04	661	6.71E-05	728	7.50E-06
394	3.40E-06	461	2.77E-04	528	3.02E-04	595	2.51E-04	662	6.23E-05	729	7.20E-06
395	3.90E-06	462	2.65E-04	529	3.04E-04	596	2.50E-04	663	5.87E-05	730	7.00E-06
396	3.70E-06	463	2.55E-04	530	3.03E-04	597	2.54E-04	664	5.63E-05	731	7.00E-06
397	4.60E-06	464	2.43E-04	531	3.06E-04	598	2.56E-04	665	5.44E-05	732	6.70E-06
398	4.50E-06	465	2.30E-04	532	3.05E-04	599	2.51E-04	666	5.33E-05	733	6.40E-06
399	4.90E-06	466	2.20E-04	533	3.06E-04	600	2.45E-04	667	5.21E-05	734	6.20E-06
400	5.40E-06	467	2.08E-04	534	3.06E-04	601	2.43E-04	668	5.16E-05	735	6.00E-06
401	5.90E-06	468	1.96E-04	535	3.06E-04	602	2.41E-04	669	5.28E-05	736	6.00E-06
402	6.60E-06	469	1.86E-04	536	3.07E-04	603	2.41E-04	670	5.37E-05	737	5.60E-06
403	7.10E-06	470	1.74E-04	537	3.09E-04	604	2.41E-04	671	5.00E-05	738	5.60E-06
404	7.90E-06	471	1.58E-04	538	3.08E-04	605	2.39E-04	672	4.64E-05	739	5.40E-06
405	8.90E-06	472	1.50E-04	539	3.08E-04	606	2.41E-04	673	4.44E-05	740	5.20E-06
406	9.70E-06	473	1.43E-04	540	3.09E-04	607	2.69E-04	674	4.24E-05	741	5.00E-06
407	1.11E-05	474	1.38E-04	541	3.09E-04	608	3.33E-04	675	3.99E-05	742	4.90E-06
408	1.22E-05	475	1.34E-04	542	3.10E-04	609	3.61E-04	676	3.82E-05	743	4.50E-06
409	1.33E-05	476	1.31E-04	543	3.09E-04	610	3.07E-04	677	3.73E-05	744	4.50E-06
410	1.51E-05	477	1.29E-04	544	3.09E-04	611	2.86E-04	678	3.65E-05	745	4.40E-06
411	1.68E-05	478	1.27E-04	545	3.10E-04	612	3.86E-04	679	3.47E-05	746	4.40E-06
412	1.89E-05	479	1.27E-04	546	3.10E-04	613	5.47E-04	680	3.35E-05	747	4.20E-06
413	2.11E-05	480	1.26E-04	547	3.10E-04	614	5.24E-04	681	3.20E-05	748	4.30E-06
414	2.41E-05	481	1.28E-04	548	3.10E-04	615	3.76E-04	682	3.14E-05	749	3.80E-06
415	2.64E-05	482	1.27E-04	549	3.10E-04	616	2.85E-04	683	3.03E-05	750	3.80E-06
416	2.98E-05	483	1.29E-04	550	3.09E-04	617	2.55E-04	684	2.94E-05	751	3.70E-06
417	3.31E-05	484	1.31E-04	551	3.08E-04	618	2.51E-04	685	2.80E-05	752	3.60E-06
418	3.71E-05	485	1.35E-04	552	3.09E-04	619	2.55E-04	686	2.79E-05	753	3.50E-06
419	4.01E-05	486	1.38E-04	553	3.10E-04	620	2.48E-04	687	2.71E-05	754	3.50E-06
420	4.56E-05	487	1.41E-04	554	3.08E-04	621	2.38E-04	688	2.57E-05	755	3.30E-06
421	5.11E-05	488	1.46E-04	555	3.09E-04	622	2.31E-04	689	2.50E-05	756	3.20E-06
422	5.52E-05	489	1.50E-04	556	3.09E-04	623	2.35E-04	690	2.42E-05	757	3.10E-06
423	6.09E-05	490	1.55E-04	557	3.08E-04	624	2.43E-04	691	2.40E-05	758	3.00E-06
424	6.68E-05	491	1.61E-04	558	3.08E-04	625	2.47E-04	692	2.29E-05	759	3.10E-06
425	7.39E-05	492	1.65E-04	559	3.07E-04	626	2.52E-04	693	2.23E-05	760	2.80E-06
426	8.34E-05	493	1.72E-04	560	3.05E-04	627	2.56E-04	694	2.19E-05	761	3.00E-06
427	9.12E-05	494	1.78E-04	561	3.06E-04	628	2.90E-04	695	2.10E-05	762	2.70E-06
428	1.03E-04	495	1.84E-04	562	3.03E-04	629	4.63E-04	696	2.02E-05	763	2.70E-06
429	1.13E-04	496	1.90E-04	563	3.05E-04	630	8.44E-04	697	1.96E-05	764	2.70E-06
430	1.24E-04	497	1.96E-04	564	3.02E-04	631	9.78E-04	698	1.89E-05	765	2.60E-06
431	1.37E-04	498	2.03E-04	565	3.01E-04	632	6.70E-04	699	1.86E-05	766	2.30E-06
432	1.48E-04	499	2.10E-04	566	3.02E-04	633	4.26E-04	700	1.78E-05	767	2.40E-06
433	1.61E-04	500	2.16E-04	567	3.01E-04	634	5.50E-04	701	1.72E-05	768	2.20E-06
434	1.74E-04	501	2.22E-04	568	3.01E-04	635	7.04E-04	702	1.66E-05	769	2.20E-06
435	1.89E-04	502	2.28E-04	569	3.00E-04	636	5.11E-04	703	1.60E-05	770	2.20E-06
436	2.08E-04	503	2.33E-04	570	2.98E-04	637	2.82E-04	704	1.56E-05	771	2.10E-06
437	2.27E-04	504	2.39E-04	571	2.97E-04	638	1.92E-04	705	1.53E-05	772	1.90E-06
438	2.47E-04	505	2.44E-04	572	2.95E-04	639	1.58E-04	706	1.47E-05	773	1.90E-06
439	2.75E-04	506	2.49E-04	573	2.93E-04	640	1.42E-04	707	1.41E-05	774	1.90E-06
440	3.02E-04	507	2.55E-04	574	2.93E-04	641	1.33E-04	708	1.40E-05	775	1.90E-06
441	3.30E-04	508	2.58E-04	575	2.91E-04	642	1.26E-04	709	1.36E-05	776	1.80E-06
442	3.59E-04	509	2.63E-04	576	2.89E-04	643	1.22E-04	710	1.29E-05	777	1.80E-06
443	3.92E-04	510	2.65E-04	577	2.87E-04	644	1.20E-04	711	1.27E-05	778	1.70E-06
444	4.19E-04	511	2.69E-04	578	2.85E-04	645	1.23E-04	712	1.22E-05	779	1.80E-06
445	4.55E-04	512	2.73E-04	579	2.83E-04	646	1.62E-04	713	1.19E-05	780	1.80E-06
446	4.80E-04	513	2.76E-04	580	2.81E-04	647	2.41E-04	714	1.15E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM2B @22W5000K	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

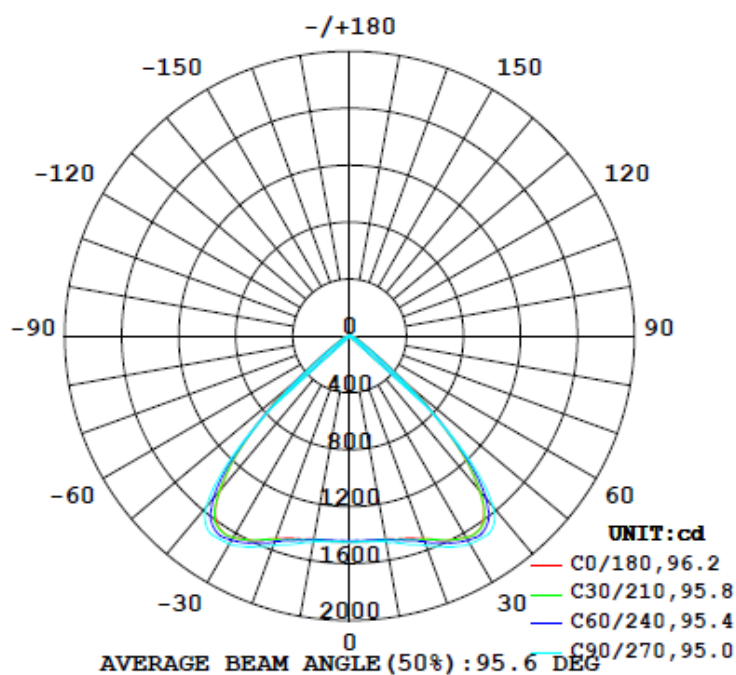
Test Result

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°)
3420	95.9	109.3	70.2	93.0	144.3	99.4%

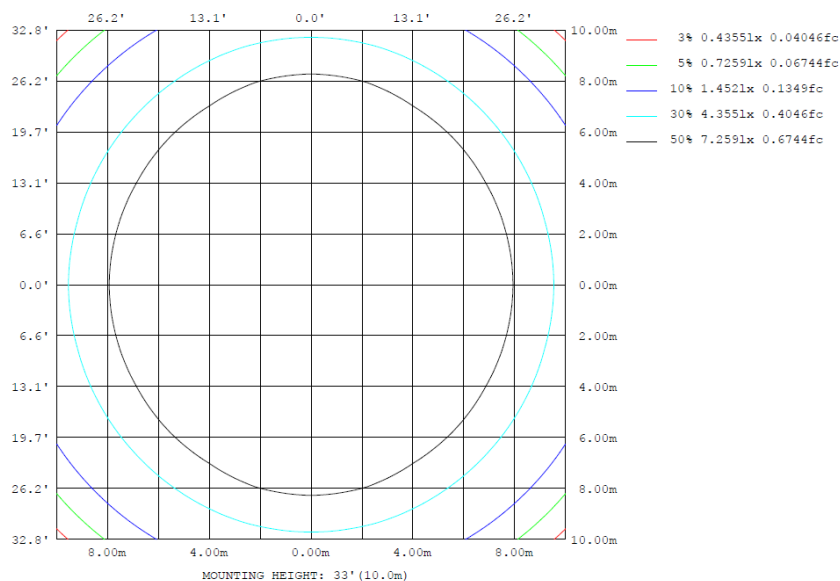
4.2 Goniophotometer Test

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	1452	1461	1469	1461	1452	1461	1469	1461	0- 10	138.4	138.4	4.05, 4.05
20	1517	1544	1567	1544	1517	1544	1567	1544	10- 20	424.3	562.6	16.5, 16.5
30	1638	1662	1685	1662	1638	1662	1685	1662	20- 30	742.6	1305	38.2, 38.2
40	1420	1456	1567	1456	1420	1456	1567	1456	30- 40	1017	2322	67.9, 67.9
50	531.0	492.6	419.8	492.6	531.0	492.6	419.8	492.6	40- 50	777.7	3100	90.6, 90.6
60	106.2	94.29	65.35	94.29	106.2	94.29	65.35	94.29	50- 60	191.1	3291	96.2, 96.2
70	51.86	43.93	33.02	43.93	51.86	43.93	33.02	43.93	60- 70	60.65	3351	98.98
80	15.77	21.33	20.07	21.33	15.77	21.33	20.07	21.33	70- 80	32.27	3384	98.9, 98.9
90	2.622	10.50	11.34	10.50	2.622	10.50	11.34	10.50	80- 90	14.95	3399	99.4, 99.4
100	1.954	4.581	9.413	4.581	1.954	4.581	9.413	4.581	90-100	6.270	3405	99.6, 99.6
110	1.817	1.336	4.190	1.336	1.817	1.336	4.190	1.336	100-110	3.057	3408	99.7, 99.7
120	3.087	1.242	1.046	1.242	3.087	1.242	1.046	1.242	110-120	1.568	3409	99.7, 99.7
130	6.177	1.243	1.133	1.243	6.177	1.243	1.133	1.243	120-130	1.442	3411	99.7, 99.7
140	8.590	2.865	2.472	2.865	8.590	2.865	2.472	2.865	130-140	1.987	3413	99.8, 99.8
150	9.105	3.490	3.133	3.490	9.105	3.490	3.133	3.490	140-150	2.489	3415	99.9, 99.9
160	8.987	3.604	3.356	3.604	8.987	3.604	3.356	3.604	150-160	1.995	3417	99.9, 99.9
170	13.04	5.721	4.563	5.721	13.04	5.721	4.563	5.721	160-170	1.498	3419	100, 100
180	13.63	6.013	5.137	6.013	13.63	6.013	5.137	6.013	170-180	0.6676	3420	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

Zonal (lm)		Total (lm)		Percent
0-10	138.35	0-10	138.35	4.05%
10-20	424.26	0-20	562.61	16.46%
20-30	742.65	0-30	1305.26	38.18%
30-40	1016.60	0-40	2321.86	67.91%
40-50	777.73	0-50	3099.59	90.66%
50-60	191.12	0-60	3290.71	96.25%
60-70	60.65	0-70	3351.36	98.02%
70-80	32.27	0-80	3383.63	98.97%
80-90	14.95	0-90	3398.58	99.41%
90-100	6.27	0-100	3404.85	99.59%
100-110	3.06	0-110	3407.91	99.68%
110-120	1.57	0-120	3409.48	99.72%
120-130	1.44	0-130	3410.92	99.77%
130-140	1.99	0-140	3412.91	99.83%
140-150	2.49	0-150	3415.40	99.90%
150-160	1.99	0-160	3417.39	99.96%
160-170	1.50	0-170	3418.89	100.00%
170-180	0.67	0-180	3419.56	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	1452	1443	1443	1448	1442	1444	1451	1444	1442	1448	1443	1443	1452	1443	1443	1448	1442	1444	1451
5	1451	1442	1447	1450	1440	1448	1455	1448	1440	1450	1447	1442	1451	1442	1447	1450	1440	1448	1455
10	1452	1455	1451	1461	1458	1465	1469	1465	1458	1461	1451	1455	1452	1455	1451	1461	1458	1465	1469
15	1477	1470	1481	1501	1486	1501	1513	1501	1486	1501	1481	1470	1477	1470	1481	1501	1486	1501	1513
20	1517	1525	1520	1544	1537	1559	1567	1559	1537	1544	1520	1525	1517	1525	1520	1544	1537	1559	1567
25	1588	1592	1584	1602	1605	1620	1637	1620	1605	1602	1584	1592	1588	1592	1584	1602	1605	1620	1637
30	1638	1643	1636	1662	1657	1674	1685	1674	1657	1662	1636	1643	1638	1643	1636	1662	1657	1674	1685
35	1621	1622	1625	1649	1656	1688	1700	1688	1656	1649	1625	1622	1621	1622	1625	1649	1656	1688	1700
40	1420	1422	1424	1456	1493	1554	1567	1554	1493	1456	1424	1422	1420	1422	1424	1456	1493	1554	1567
45	1028	1015	1024	1037	1052	1072	1076	1072	1052	1037	1024	1015	1028	1015	1024	1037	1052	1072	1076
50	531	519	512	493	476	436	420	436	476	493	512	519	531	519	512	493	476	436	420
55	201	204	195	187	175	154	142	154	175	187	195	204	201	204	195	187	175	154	142
60	106	108	101	94.3	83.3	71.6	65.3	71.6	83.3	94.3	101	108	106	108	101	94.3	83.3	71.6	65.3
65	73.5	71.7	66.4	61.1	52.2	44.8	41.8	44.8	52.2	61.1	66.4	71.7	73.5	71.7	66.4	61.1	52.2	44.8	41.8
70	51.9	51.4	48.4	43.9	37.5	32.8	33.0	32.8	37.5	43.9	48.4	51.4	51.9	51.4	48.4	43.9	37.5	32.8	33.0
75	38.1	33.4	32.8	31.2	27.4	23.7	25.0	23.7	27.4	31.2	32.8	33.4	38.1	33.4	32.8	31.2	27.4	23.7	25.0
80	15.8	18.6	20.8	21.3	23.2	21.2	20.1	21.2	23.2	21.3	20.8	18.6	15.8	18.6	20.8	21.3	23.2	21.2	20.1
85	9.00	10.8	13.9	13.8	14.3	13.2	17.8	13.2	14.3	13.8	13.9	10.8	9.00	10.8	13.9	13.8	14.3	13.2	17.8
90	2.62	5.39	11.5	10.5	8.55	8.31	11.3	8.31	8.55	10.5	11.5	5.39	2.62	5.39	11.5	10.5	8.55	8.31	11.3
95	2.22	2.79	5.14	5.45	5.79	6.67	9.91	6.67	5.79	5.45	5.14	2.79	2.22	2.79	5.14	5.45	5.79	6.67	9.91
100	1.95	1.83	2.58	4.58	6.06	7.91	9.41	7.91	6.06	4.58	2.58	1.83	1.95	1.83	2.58	4.58	6.06	7.91	9.41
105	1.72	1.54	1.40	1.72	2.66	4.39	5.81	4.39	2.66	1.72	1.40	1.54	1.72	1.54	1.40	1.72	2.66	4.39	5.81
110	1.82	1.56	1.33	1.34	1.61	3.05	4.19	3.05	1.61	1.34	1.33	1.56	1.82	1.56	1.33	1.34	1.61	3.05	4.19
115	1.91	1.59	1.36	1.24	1.04	1.63	2.30	1.63	1.04	1.24	1.36	1.59	1.91	1.59	1.36	1.24	1.04	1.63	2.30
120	3.09	1.61	1.38	1.24	1.00	1.24	1.05	1.24	1.00	1.24	1.38	1.61	3.09	1.61	1.38	1.24	1.00	1.24	1.05
125	4.92	1.64	1.41	1.24	1.13	1.24	1.09	1.24	1.13	1.24	1.41	1.64	4.92	1.64	1.41	1.24	1.13	1.24	1.09
130	6.18	2.31	1.52	1.24	1.23	1.24	1.13	1.24	1.23	1.24	1.52	2.31	6.18	2.31	1.52	1.24	1.23	1.24	1.13
135	7.25	2.89	2.28	2.00	1.89	1.62	1.71	1.62	1.89	2.00	2.28	2.89	7.25	2.89	2.28	2.00	1.89	1.62	1.71
140	8.59	4.04	3.04	2.87	2.56	2.48	2.47	2.48	2.56	2.87	3.04	4.04	8.59	4.04	3.04	2.87	2.56	2.48	2.47
145	9.18	4.91	3.89	3.37	3.18	3.05	3.04	3.05	3.18	3.37	3.89	4.91	9.18	4.91	3.89	3.37	3.18	3.05	3.04
150	9.10	5.29	3.89	3.49	3.45	3.24	3.13	3.24	3.45	3.49	3.89	5.29	9.10	5.29	3.89	3.49	3.45	3.24	3.13
155	9.03	5.20	3.90	3.55	3.67	3.39	3.24	3.39	3.67	3.55	3.90	5.20	9.03	5.20	3.90	3.55	3.67	3.39	3.24
160	8.99	5.06	4.09	3.60	3.89	3.53	3.36	3.53	3.89	3.60	4.09	5.06	8.99	5.06	4.09	3.60	3.89	3.53	3.36
165	11.6	7.01	5.32	4.58	4.17	4.00	3.90	4.00	4.17	4.58	5.32	7.01	11.6	7.01	5.32	4.58	4.17	4.00	3.90
170	13.0	8.84	6.46	5.72	5.02	4.77	4.56	4.77	5.02	5.72	6.46	8.84	13.0	8.84	6.46	5.72	5.02	4.77	4.56
175	13.6	9.52	7.13	6.01	5.59	5.34	5.04	5.34	5.59	6.01	7.13	9.52	13.6	9.52	7.13	6.01	5.59	5.34	5.04
180	13.6	9.43	7.13	6.01	5.69	5.34	5.14	5.34	5.69	6.01	7.13	9.43	13.6	9.43	7.13	6.01	5.69	5.34	5.14

Table--2

UNIT: cd

C (DEG) y	285	300	315	330	345														
0	1444	1442	1448	1443	1443														
5	1448	1440	1450	1447	1442														
10	1465	1458	1461	1451	1455														
15	1501	1486	1501	1481	1470														
20	1559	1537	1544	1520	1525														
25	1620	1605	1602	1584	1592														
30	1674	1657	1662	1636	1643														
35	1688	1656	1649	1625	1622														
40	1554	1493	1456	1424	1422														
45	1072	1052	1037	1024	1015														
50	436	476	493	512	519														
55	154	175	187	195	204														
60	71.6	83.3	94.3	101	108														
65	44.8	52.2	61.1	66.4	71.7														
70	32.8	37.5	43.9	48.4	51.4														
75	23.7	27.4	31.2	32.8	33.4														
80	21.2	23.2	21.3	20.8	18.6														
85	13.2	14.3	13.8	13.9	10.8														
90	8.31	8.55	10.5	11.5	5.39														
95	6.67	5.79	5.45	5.14	2.79														
100	7.91	6.06	4.58	2.58	1.83														
105	4.39	2.66	1.72	1.40	1.54														
110	3.05	1.61	1.34	1.33	1.56														
115	1.63	1.04	1.24	1.36	1.59														
120	1.24	1.00	1.24	1.38	1.61														
125	1.24	1.13	1.24	1.41	1.64														
130	1.24	1.23	1.24	1.52	2.31														
135	1.62	1.89	2.00	2.28	2.89														
140	2.48	2.56	2.87	3.04	4.04														
145	3.05	3.18	3.37	3.89	4.91														
150	3.24	3.45	3.49	3.89	5.29														
155	3.39	3.67	3.55	3.90	5.20														
160	3.53	3.89	3.60	4.09	5.06														
165	4.00	4.17	4.58	5.32	7.01														
170	4.77	5.02	5.72	6.46	8.84														
175	5.34	5.59	6.01	7.13	9.52														
180	5.34	5.69	6.01	7.13	9.43														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM2B @22W5000K	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 $25 \pm 1^\circ\text{C}$. 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	9.69

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*****