

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		4127
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	134.4
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		30.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.47
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	3985±275	3941
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		94.8
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		0.258
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		30.7
(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 @30W4000K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @30W4000K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @30W4000K	-	250903025-S1

Remark (If any):

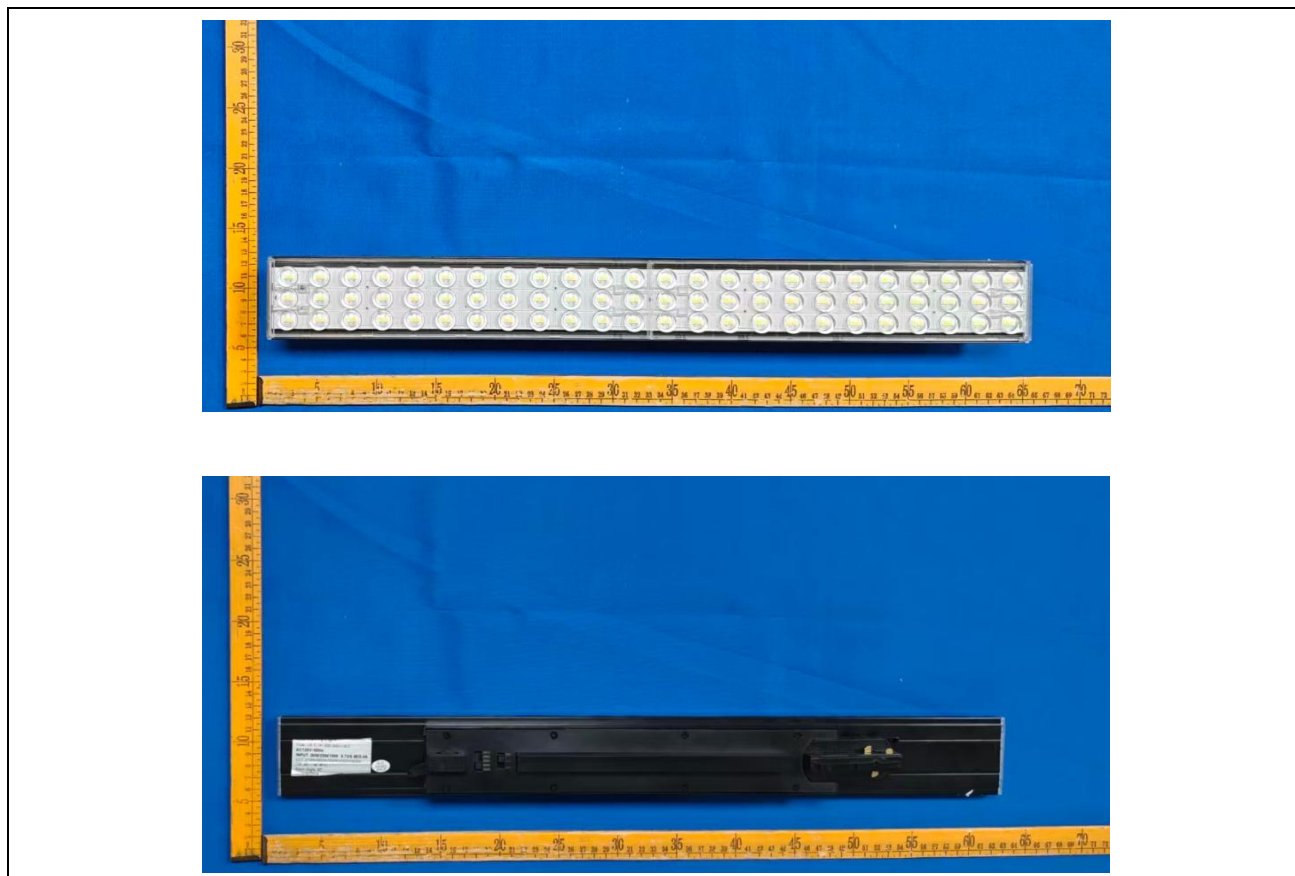
1. The results contained in this report pertain only to the tested samples.
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3.0 Product Description

Luminaire Description: Model No. TKBEAM2B @30W4000K, 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 @30W4000K	Sample ID	250903025-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.

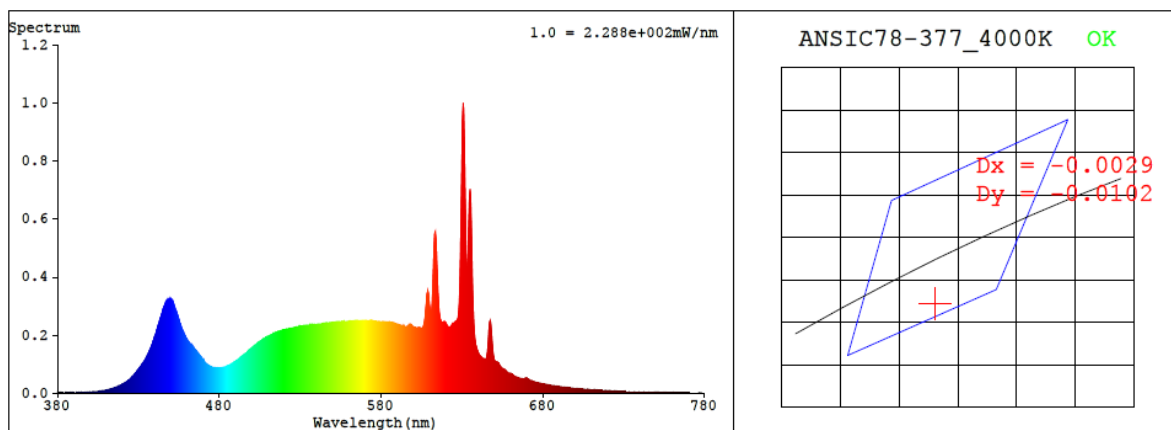
The sample was measured using 4 π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to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

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.258	30.7	0.993

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3941	94.8	85	-0.0040	5.2	91	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3802$ $y = 0.3682$ / $u' = 0.2284$ $v' = 0.4977$ ($duv = -4.00e-03$)

CCT= 3941K Prcp WL: Ld=581.8nm Purity=24.6%

Peak WL: Lp=631nm FWHM: =3.7nm Ratio:R=21.3% G=75.0% B=3.7%

Render Index: Ra = 94.8 AvgR = 92.7 TM30:Rf=91 Rg=104

EEL: 0.10684 A++ Highest

R1 =99 R2 =96 R3 =90 R4 =93 R5 =98 R6 =93 R7 =94

R8 =95 R9 =85 R10=87 R11=92 R12=79 R13=98 R14=93 R15=98

4.1 Integrating Sphere Test

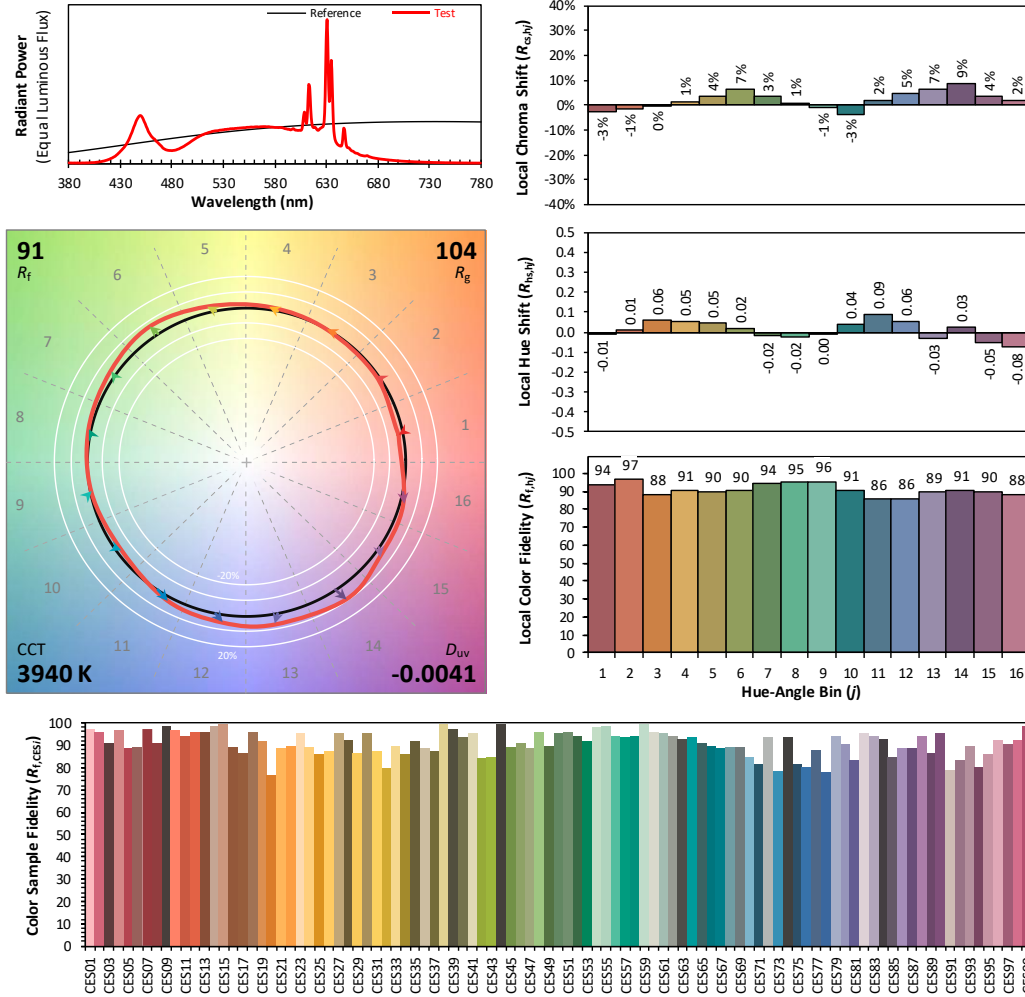
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @30W4000K



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

x 0.3802
 y 0.3681
 u' 0.2285
 v' 0.4976

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	3.40E-06	447	3.12E-04	514	2.06E-04	581	2.45E-04	648	2.27E-04	715	1.06E-05
381	2.50E-06	448	3.22E-04	515	2.09E-04	582	2.45E-04	649	1.52E-04	716	1.03E-05
382	2.50E-06	449	3.26E-04	516	2.11E-04	583	2.44E-04	650	1.15E-04	717	9.90E-06
383	2.10E-06	450	3.24E-04	517	2.13E-04	584	2.44E-04	651	1.07E-04	718	9.80E-06
384	2.10E-06	451	3.15E-04	518	2.14E-04	585	2.45E-04	652	1.06E-04	719	9.50E-06
385	2.50E-06	452	3.02E-04	519	2.18E-04	586	2.44E-04	653	9.91E-05	720	9.20E-06
386	2.40E-06	453	2.85E-04	520	2.19E-04	587	2.44E-04	654	9.03E-05	721	8.90E-06
387	1.90E-06	454	2.71E-04	521	2.20E-04	588	2.42E-04	655	8.49E-05	722	8.60E-06
388	2.80E-06	455	2.52E-04	522	2.22E-04	589	2.39E-04	656	8.29E-05	723	8.30E-06
389	2.50E-06	456	2.37E-04	523	2.22E-04	590	2.37E-04	657	7.79E-05	724	8.00E-06
390	1.50E-06	457	2.18E-04	524	2.23E-04	591	2.36E-04	658	7.23E-05	725	7.90E-06
391	2.00E-06	458	2.07E-04	525	2.23E-04	592	2.34E-04	659	6.96E-05	726	7.60E-06
392	2.30E-06	459	1.95E-04	526	2.26E-04	593	2.32E-04	660	6.84E-05	727	7.30E-06
393	2.70E-06	460	1.85E-04	527	2.27E-04	594	2.33E-04	661	6.56E-05	728	7.20E-06
394	2.50E-06	461	1.77E-04	528	2.27E-04	595	2.29E-04	662	6.08E-05	729	6.90E-06
395	2.60E-06	462	1.70E-04	529	2.29E-04	596	2.30E-04	663	5.71E-05	730	6.80E-06
396	2.90E-06	463	1.66E-04	530	2.28E-04	597	2.33E-04	664	5.48E-05	731	6.60E-06
397	3.20E-06	464	1.57E-04	531	2.31E-04	598	2.37E-04	665	5.33E-05	732	6.30E-06
398	3.20E-06	465	1.49E-04	532	2.32E-04	599	2.32E-04	666	5.17E-05	733	6.20E-06
399	3.20E-06	466	1.43E-04	533	2.31E-04	600	2.27E-04	667	5.05E-05	734	5.80E-06
400	4.20E-06	467	1.36E-04	534	2.33E-04	601	2.27E-04	668	5.01E-05	735	5.70E-06
401	4.20E-06	468	1.29E-04	535	2.33E-04	602	2.25E-04	669	5.14E-05	736	5.70E-06
402	5.10E-06	469	1.22E-04	536	2.35E-04	603	2.25E-04	670	5.25E-05	737	5.40E-06
403	4.70E-06	470	1.15E-04	537	2.36E-04	604	2.26E-04	671	4.88E-05	738	5.40E-06
404	5.30E-06	471	1.06E-04	538	2.36E-04	605	2.25E-04	672	4.51E-05	739	5.20E-06
405	5.50E-06	472	1.01E-04	539	2.37E-04	606	2.28E-04	673	4.32E-05	740	4.90E-06
406	7.10E-06	473	9.67E-05	540	2.36E-04	607	2.55E-04	674	4.07E-05	741	4.70E-06
407	7.60E-06	474	9.29E-05	541	2.38E-04	608	3.20E-04	675	3.88E-05	742	4.90E-06
408	8.50E-06	475	9.09E-05	542	2.39E-04	609	3.50E-04	676	3.71E-05	743	4.50E-06
409	9.40E-06	476	8.91E-05	543	2.39E-04	610	2.97E-04	677	3.60E-05	744	4.50E-06
410	1.06E-05	477	8.82E-05	544	2.40E-04	611	2.75E-04	678	3.45E-05	745	4.30E-06
411	1.19E-05	478	8.75E-05	545	2.40E-04	612	3.74E-04	679	3.37E-05	746	3.90E-06
412	1.33E-05	479	8.75E-05	546	2.41E-04	613	5.37E-04	680	3.24E-05	747	4.00E-06
413	1.50E-05	480	8.66E-05	547	2.41E-04	614	5.16E-04	681	3.12E-05	748	4.00E-06
414	1.62E-05	481	8.80E-05	548	2.42E-04	615	3.69E-04	682	3.01E-05	749	3.70E-06
415	1.84E-05	482	8.86E-05	549	2.43E-04	616	2.77E-04	683	2.92E-05	750	3.90E-06
416	2.05E-05	483	8.98E-05	550	2.44E-04	617	2.48E-04	684	2.83E-05	751	3.70E-06
417	2.26E-05	484	9.14E-05	551	2.43E-04	618	2.44E-04	685	2.75E-05	752	3.50E-06
418	2.54E-05	485	9.44E-05	552	2.45E-04	619	2.47E-04	686	2.68E-05	753	3.30E-06
419	2.76E-05	486	9.69E-05	553	2.46E-04	620	2.41E-04	687	2.61E-05	754	3.30E-06
420	3.13E-05	487	9.92E-05	554	2.46E-04	621	2.31E-04	688	2.49E-05	755	3.30E-06
421	3.46E-05	488	1.04E-04	555	2.46E-04	622	2.25E-04	689	2.43E-05	756	3.10E-06
422	3.72E-05	489	1.07E-04	556	2.47E-04	623	2.29E-04	690	2.36E-05	757	2.90E-06
423	4.18E-05	490	1.10E-04	557	2.48E-04	624	2.38E-04	691	2.29E-05	758	2.90E-06
424	4.54E-05	491	1.14E-04	558	2.48E-04	625	2.41E-04	692	2.18E-05	759	3.00E-06
425	4.97E-05	492	1.18E-04	559	2.47E-04	626	2.47E-04	693	2.16E-05	760	2.80E-06
426	5.62E-05	493	1.23E-04	560	2.48E-04	627	2.51E-04	694	2.07E-05	761	2.60E-06
427	6.17E-05	494	1.27E-04	561	2.49E-04	628	2.85E-04	695	2.01E-05	762	2.70E-06
428	6.90E-05	495	1.32E-04	562	2.49E-04	629	4.58E-04	696	1.95E-05	763	2.50E-06
429	7.55E-05	496	1.36E-04	563	2.50E-04	630	8.39E-04	697	1.89E-05	764	2.60E-06
430	8.32E-05	497	1.41E-04	564	2.48E-04	631	9.78E-04	698	1.84E-05	765	2.40E-06
431	9.01E-05	498	1.46E-04	565	2.49E-04	632	6.69E-04	699	1.77E-05	766	2.70E-06
432	9.79E-05	499	1.51E-04	566	2.50E-04	633	4.25E-04	700	1.71E-05	767	2.30E-06
433	1.05E-04	500	1.56E-04	567	2.50E-04	634	5.46E-04	701	1.65E-05	768	2.20E-06
434	1.14E-04	501	1.61E-04	568	2.50E-04	635	7.03E-04	702	1.61E-05	769	2.10E-06
435	1.25E-04	502	1.65E-04	569	2.51E-04	636	5.12E-04	703	1.53E-05	770	2.10E-06
436	1.36E-04	503	1.70E-04	570	2.51E-04	637	2.81E-04	704	1.50E-05	771	2.00E-06
437	1.48E-04	504	1.75E-04	571	2.51E-04	638	1.90E-04	705	1.45E-05	772	2.00E-06
438	1.61E-04	505	1.78E-04	572	2.50E-04	639	1.55E-04	706	1.41E-05	773	1.90E-06
439	1.77E-04	506	1.82E-04	573	2.50E-04	640	1.40E-04	707	1.37E-05	774	1.80E-06
440	1.95E-04	507	1.87E-04	574	2.50E-04	641	1.30E-04	708	1.32E-05	775	1.90E-06
441	2.10E-04	508	1.89E-04	575	2.49E-04	642	1.24E-04	709	1.31E-05	776	1.90E-06
442	2.30E-04	509	1.93E-04	576	2.48E-04	643	1.20E-04	710	1.23E-05	777	1.70E-06
443	2.50E-04	510	1.95E-04	577	2.48E-04	644	1.18E-04	711	1.21E-05	778	1.80E-06
444	2.66E-04	511	1.98E-04	578	2.47E-04	645	1.20E-04	712	1.19E-05	779	1.80E-06
445	2.85E-04	512	2.01E-04	579	2.46E-04	646	1.59E-04	713	1.13E-05	780	1.80E-06
446	3.00E-04	513	2.04E-04	580	2.45E-04	647	2.39E-04	714	1.11E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM2B @30W4000K	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	0.258	30.7	0.993
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

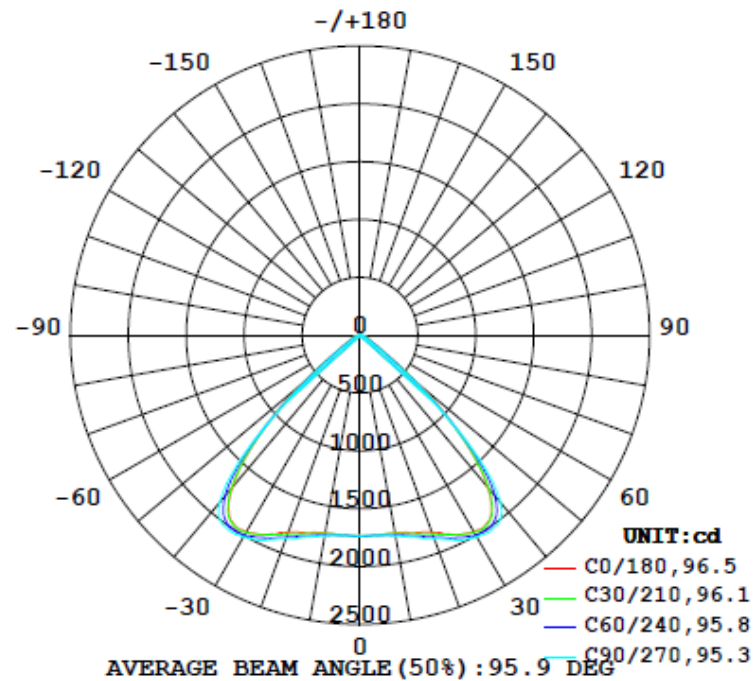
Test Result

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°)
4127	96.6	109.1	70.9	92.1	134.4	99.4%

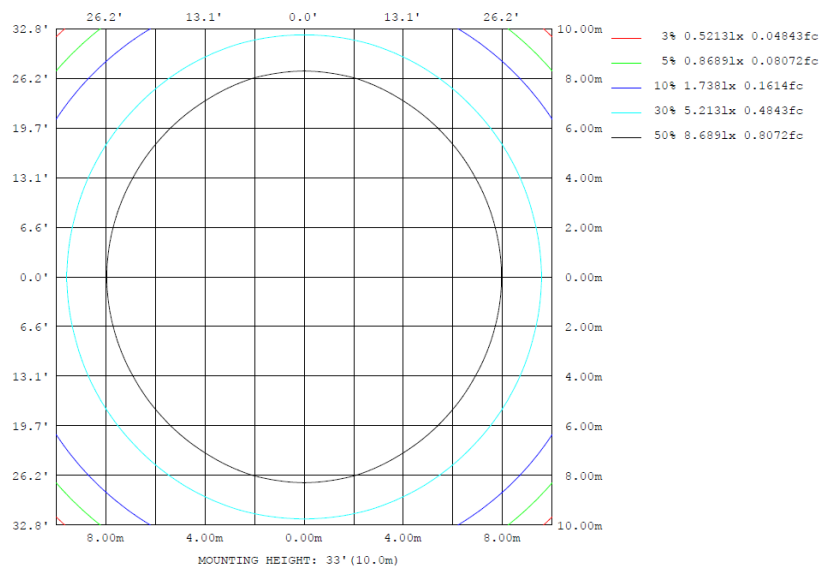
4.2 Goniophotometer Test

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	ϕ lum, lamp
10	1737	1756	1759	1756	1737	1756	1759	1756	0- 10	166.1	166.1	4.02, 4.02
20	1815	1850	1874	1850	1815	1850	1874	1850	10- 20	508.8	674.9	16.4, 16.4
30	1966	1985	2014	1985	1966	1985	2014	1985	20- 30	890.4	1565	37.9, 37.9
40	1718	1758	1890	1758	1718	1758	1890	1758	30- 40	1222	2788	67.5, 67.5
50	651.2	612.1	524.4	612.1	651.2	612.1	524.4	612.1	40- 50	949.6	3737	90.5, 90.5
60	129.6	114.5	79.45	114.5	129.6	114.5	79.45	114.5	50- 60	236.1	3973	96.3, 96.3
70	61.32	51.98	38.98	51.98	61.32	51.98	38.98	51.98	60- 70	73.28	4047	98.98
80	19.21	25.32	23.89	25.32	19.21	25.32	23.89	25.32	70- 80	38.59	4085	99.99
90	3.094	12.02	13.32	12.02	3.094	12.02	13.32	12.02	80- 90	17.81	4103	99.4, 99.4
100	2.295	5.491	11.18	5.491	2.295	5.491	11.18	5.491	90-100	7.411	4110	99.6, 99.6
110	1.913	1.325	4.902	1.325	1.913	1.325	4.902	1.325	100-110	3.571	4114	99.7, 99.7
120	3.633	1.230	1.129	1.230	3.633	1.230	1.129	1.230	110-120	1.711	4116	99.7, 99.7
130	7.358	1.514	1.224	1.514	7.358	1.514	1.224	1.514	120-130	1.549	4117	99.8, 99.8
140	9.849	3.123	2.820	3.123	9.849	3.123	2.820	3.123	130-140	2.356	4120	99.8, 99.8
150	10.90	4.164	3.952	4.164	10.90	4.164	3.952	4.164	140-150	2.987	4123	99.9, 99.9
160	10.62	4.164	3.950	4.164	10.62	4.164	3.950	4.164	150-160	2.343	4125	99.9, 99.9
170	15.68	6.530	5.637	6.530	15.68	6.530	5.637	6.530	160-170	1.769	4127	100, 100
180	16.35	7.193	6.113	7.193	16.35	7.193	6.113	7.193	170-180	0.7992	4127	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	166.12	0-10	166.12	4.03%
10-20	508.83	0-20	674.95	16.36%
20-30	890.43	0-30	1565.38	37.93%
30-40	1222.21	0-40	2787.59	67.55%
40-50	949.60	0-50	3737.19	90.56%
50-60	236.06	0-60	3973.25	96.28%
60-70	73.28	0-70	4046.53	98.06%
70-80	38.59	0-80	4085.12	98.99%
80-90	17.81	0-90	4102.93	99.43%
90-100	7.41	0-100	4110.34	99.61%
100-110	3.57	0-110	4113.91	99.69%
110-120	1.71	0-120	4115.62	99.73%
120-130	1.55	0-130	4117.17	99.77%
130-140	2.36	0-140	4119.53	99.83%
140-150	2.99	0-150	4122.52	99.90%
150-160	2.34	0-160	4124.86	99.96%
160-170	1.77	0-170	4126.63	100.00%
170-180	0.80	0-180	4127.43	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	1737	1734	1740	1739	1740	1739	1735	1739	1740	1739	1740	1734	1737	1734	1740	1739	1740	1739	1735
5	1738	1728	1733	1738	1736	1741	1735	1741	1736	1738	1733	1728	1738	1728	1733	1738	1736	1741	1735
10	1737	1741	1743	1756	1753	1757	1759	1757	1753	1756	1743	1741	1737	1741	1743	1756	1753	1757	1759
15	1771	1763	1774	1793	1795	1803	1806	1803	1795	1793	1774	1763	1771	1763	1774	1793	1795	1803	1806
20	1815	1823	1830	1850	1858	1869	1874	1869	1858	1850	1830	1823	1815	1823	1830	1850	1858	1869	1874
25	1900	1904	1902	1923	1932	1944	1954	1944	1932	1923	1902	1904	1900	1904	1902	1923	1932	1944	1954
30	1966	1960	1967	1985	1998	2003	2014	2003	1998	1985	1967	1960	1966	1960	1967	1985	1998	2003	2014
35	1950	1949	1956	1983	1997	2029	2024	2029	1997	1983	1956	1949	1950	1949	1956	1983	1997	2029	2024
40	1718	1715	1730	1758	1814	1876	1890	1876	1814	1758	1730	1715	1718	1715	1730	1758	1814	1876	1890
45	1250	1244	1244	1271	1292	1314	1315	1314	1292	1271	1244	1244	1250	1244	1244	1271	1292	1314	1315
50	651	642	633	612	596	543	524	543	596	612	633	642	651	642	633	612	596	543	524
55	247	250	239	230	216	190	173	190	216	230	239	250	247	250	239	230	216	190	173
60	130	130	122	114	102	87.7	79.5	87.7	102	114	122	130	130	122	114	102	87.7	79.5	
65	88.3	86.1	80.7	73.6	63.0	54.1	50.0	54.1	63.0	73.6	80.7	86.1	88.3	86.1	80.7	73.6	63.0	54.1	50.0
70	61.3	62.0	58.6	52.0	44.8	39.1	39.0	39.1	44.8	52.0	58.6	62.0	61.3	62.0	58.6	52.0	44.8	39.1	39.0
75	46.6	40.0	39.2	37.3	33.2	28.2	29.2	28.2	33.2	37.3	39.2	40.0	46.6	40.0	39.2	37.3	33.2	28.2	29.2
80	19.2	22.3	24.8	25.3	28.0	25.6	23.9	25.6	28.0	25.3	24.8	22.3	19.2	22.3	24.8	25.3	28.0	25.6	23.9
85	11.0	12.6	16.6	16.3	16.8	15.5	20.4	15.5	16.8	16.3	16.6	12.6	11.0	12.6	16.6	16.3	16.8	15.5	20.4
90	3.09	6.39	13.9	12.0	10.1	10.0	13.3	10.0	10.1	12.0	13.9	6.39	3.09	6.39	13.9	12.0	10.1	10.0	13.3
95	2.58	3.15	5.86	6.54	6.99	7.94	11.8	7.94	6.99	6.54	5.86	3.15	2.58	3.15	5.86	6.54	6.99	7.94	11.8
100	2.30	2.09	2.95	5.49	7.37	9.36	11.2	9.36	7.37	5.49	2.95	2.09	2.30	2.09	2.95	5.49	7.37	9.36	11.2
105	2.01	1.81	1.61	2.00	3.13	5.13	6.78	5.13	3.13	2.00	1.61	1.81	2.01	1.81	1.61	2.00	3.13	5.13	6.78
110	1.91	1.71	1.51	1.33	1.89	3.69	4.90	3.69	1.89	1.33	1.51	1.71	1.91	1.71	1.51	1.33	1.89	3.69	4.90
115	1.92	1.71	1.42	1.23	1.04	2.09	2.74	2.09	1.04	1.23	1.42	1.71	1.92	1.71	1.42	1.23	1.04	2.09	2.74
120	3.63	1.71	1.42	1.23	1.04	1.04	1.13	1.04	1.04	1.23	1.42	1.71	3.63	1.71	1.42	1.23	1.04	1.04	1.13
125	5.74	1.81	1.42	1.23	1.04	1.04	1.13	1.04	1.04	1.23	1.42	1.81	5.74	1.81	1.42	1.23	1.04	1.04	1.13
130	7.36	2.57	1.88	1.51	1.42	1.42	1.22	1.42	1.51	1.88	2.57	7.36	2.57	1.88	1.51	1.42	1.42	1.22	
135	8.80	3.52	2.55	2.46	2.17	2.26	2.07	2.26	2.17	2.46	2.55	3.52	8.80	3.52	2.55	2.46	2.17	2.26	2.07
140	9.85	4.66	3.68	3.12	3.12	2.93	2.82	2.93	3.12	3.12	3.68	4.66	9.85	4.66	3.68	3.12	3.12	2.93	2.82
145	10.8	5.80	4.62	4.16	3.87	3.78	3.76	3.78	4.16	4.62	5.80	10.8	5.80	4.62	4.16	3.87	3.76	3.78	3.76
150	10.9	6.19	4.81	4.16	4.06	3.98	3.95	3.98	4.06	4.16	4.81	6.19	10.9	6.19	4.81	4.16	4.06	3.98	3.95
155	10.9	6.19	4.81	4.16	4.06	3.98	3.95	3.98	4.06	4.16	4.81	6.19	10.9	6.19	4.81	4.16	4.06	3.98	3.95
160	10.6	5.62	4.53	4.16	4.06	3.98	3.95	3.98	4.06	4.16	4.53	5.62	10.6	5.62	4.53	4.16	4.06	3.98	3.95
165	13.9	8.37	6.23	5.39	5.00	4.83	4.70	4.83	5.00	5.39	6.23	8.37	13.9	8.37	6.23	5.39	5.00	4.83	4.70
170	15.7	10.7	7.83	6.53	6.13	5.87	5.64	5.87	6.13	6.53	7.83	10.7	15.7	10.7	7.83	6.53	6.13	5.87	5.64
175	16.3	11.5	8.50	7.10	6.52	6.34	6.11	6.34	6.52	7.10	8.50	11.5	16.3	11.5	8.50	7.10	6.52	6.34	6.11
180	16.4	11.4	8.59	7.19	6.71	6.34	6.11	6.34	6.71	7.19	8.59	11.4	16.4	11.4	8.59	7.19	6.71	6.34	6.11

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	1739	1740	1739	1740	1734														
5	1741	1736	1738	1733	1728														
10	1757	1753	1756	1743	1741														
15	1803	1795	1793	1774	1763														
20	1869	1858	1850	1830	1823														
25	1944	1932	1923	1902	1904														
30	2003	1998	1985	1967	1960														
35	2029	1997	1983	1956	1949														
40	1876	1814	1758	1730	1715														
45	1314	1292	1271	1244	1244														
50	543	596	612	633	642														
55	190	216	230	239	250														
60	87.7	102	114	122	130														
65	54.1	63.0	73.6	80.7	86.1														
70	39.1	44.8	52.0	58.6	62.0														
75	28.2	33.2	37.3	39.2	40.0														
80	25.6	28.0	25.3	24.8	22.3														
85	15.5	16.8	16.3	16.6	12.6														
90	10.0	10.1	12.0	13.9	6.39														
95	7.94	6.99	6.54	5.86	3.15														
100	9.36	7.37	5.49	2.95	2.09														
105	5.13	3.13	2.00	1.61	1.81														
110	3.69	1.89	1.33	1.51	1.71														
115	2.09	1.04	1.23	1.42	1.71														
120	1.04	1.04	1.23	1.42	1.71														
125	1.04	1.04	1.23	1.42	1.81														
130	1.42	1.42	1.51	1.88	2.57														
135	2.26	2.17	2.46	2.55	3.52														
140	2.93	3.12	3.12	3.68	4.66														
145	3.78	3.87	4.16	4.62	5.80														
150	3.98	4.06	4.16	4.81	6.19														
155	3.98	4.06	4.16	4.81	6.19														
160	3.98	4.06	4.16	4.53	5.62														
165	4.83	5.00	5.39	6.23	8.37														
170	5.87	6.13	6.53	7.83	10.7														
175	6.34	6.52	7.10	8.50	11.5														
180	6.34	6.71	7.19	8.59	11.4														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM2B @30W4000K	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	0.258	30.7	0.993	9.47

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*****