

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

Address: 408 W 14th St New York, NY 10014

Prepared By

Dongguan New Testing Centre Co., Ltd.

Address: 3F No. 1 the 1st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China

Prepare by:

Alan Wang

Engineer: Alan Wang

Date: 2025-09-25

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

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		4095
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	133.4
			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	9.50
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	3465±245	3442
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		94.9
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		79
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 @30W3500K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @30W3500K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @30W3500K	-	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 @30W3500K, 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 @30W3500K	Sample ID	250903025-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

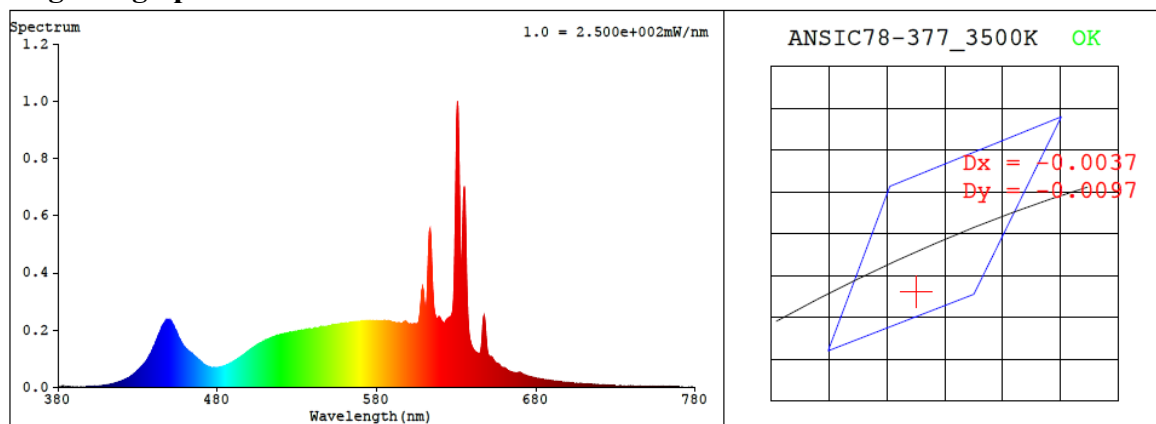
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.258	30.7	0.993

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3442	94.9	79	-0.0035	4.2	91	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4049$ $y = 0.3826$ / $u' = 0.2388$ $v' = 0.5078$ ($duv = -3.49e-03$)

CCT= 3442K Prcp WL: $L_d = 582.7\text{nm}$ Purity=36.3%

Peak WL: $L_p = 631\text{nm}$ FWHM: $\approx 3.7\text{nm}$ Ratio: R=23.1% G=73.7% B=3.2%

Render Index: $R_a = 94.9$ AvgR = 92.8 TM30: Rf=90 Rg=104

EEL: 0.10738 A++ Highest

R1 =99 R2 =96 R3 =92 R4 =94 R5 =97 R6 =95 R7 =94

R8 =92 R9 =79 R10=89 R11=93 R12=83 R13=98 R14=94 R15=97

4.1 Integrating Sphere Test

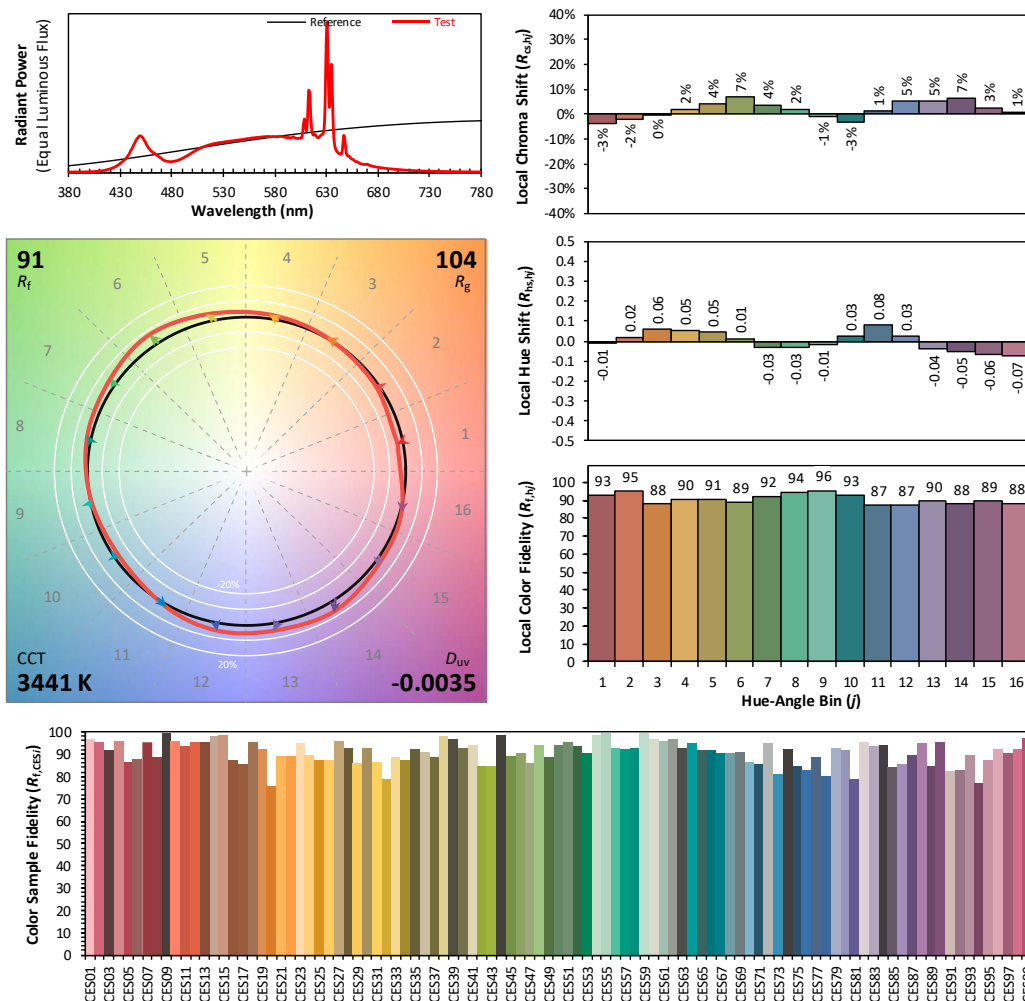
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @30W3500K



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

x 0.4048
 y 0.3825
 u' 0.2388
 v' 0.5077

CIE 13.3-1995
(CRI)

R_a 95
 R_g 79

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	1.80E-06	447	2.25E-04	514	1.73E-04	581	2.31E-04	648	2.26E-04	715	1.05E-05
381	1.60E-06	448	2.34E-04	515	1.75E-04	582	2.31E-04	649	1.52E-04	716	1.00E-05
382	1.70E-06	449	2.37E-04	516	1.77E-04	583	2.32E-04	650	1.15E-04	717	9.90E-06
383	6.00E-07	450	2.34E-04	517	1.79E-04	584	2.32E-04	651	1.07E-04	718	9.50E-06
384	7.00E-07	451	2.29E-04	518	1.80E-04	585	2.32E-04	652	1.06E-04	719	9.50E-06
385	1.80E-06	452	2.19E-04	519	1.83E-04	586	2.33E-04	653	9.86E-05	720	8.90E-06
386	2.30E-06	453	2.07E-04	520	1.84E-04	587	2.32E-04	654	8.98E-05	721	8.70E-06
387	2.00E-06	454	1.98E-04	521	1.86E-04	588	2.32E-04	655	8.49E-05	722	8.30E-06
388	1.50E-06	455	1.83E-04	522	1.87E-04	589	2.30E-04	656	8.27E-05	723	8.10E-06
389	1.30E-06	456	1.71E-04	523	1.88E-04	590	2.27E-04	657	7.83E-05	724	7.80E-06
390	1.30E-06	457	1.60E-04	524	1.90E-04	591	2.26E-04	658	7.18E-05	725	7.80E-06
391	1.20E-06	458	1.51E-04	525	1.90E-04	592	2.25E-04	659	6.94E-05	726	7.40E-06
392	1.40E-06	459	1.42E-04	526	1.93E-04	593	2.25E-04	660	6.84E-05	727	7.20E-06
393	1.70E-06	460	1.36E-04	527	1.92E-04	594	2.26E-04	661	6.50E-05	728	6.90E-06
394	1.80E-06	461	1.32E-04	528	1.93E-04	595	2.22E-04	662	6.04E-05	729	6.70E-06
395	2.00E-06	462	1.26E-04	529	1.95E-04	596	2.23E-04	663	5.66E-05	730	6.50E-06
396	1.50E-06	463	1.23E-04	530	1.95E-04	597	2.27E-04	664	5.46E-05	731	6.30E-06
397	2.10E-06	464	1.17E-04	531	1.97E-04	598	2.30E-04	665	5.29E-05	732	6.20E-06
398	2.40E-06	465	1.12E-04	532	1.98E-04	599	2.26E-04	666	5.16E-05	733	6.10E-06
399	2.10E-06	466	1.07E-04	533	1.99E-04	600	2.21E-04	667	5.05E-05	734	5.70E-06
400	2.70E-06	467	1.03E-04	534	2.00E-04	601	2.21E-04	668	4.99E-05	735	5.70E-06
401	2.70E-06	468	9.67E-05	535	1.99E-04	602	2.20E-04	669	5.14E-05	736	5.40E-06
402	3.20E-06	469	9.28E-05	536	2.02E-04	603	2.20E-04	670	5.23E-05	737	5.30E-06
403	4.10E-06	470	8.85E-05	537	2.03E-04	604	2.21E-04	671	4.85E-05	738	5.10E-06
404	3.90E-06	471	8.15E-05	538	2.03E-04	605	2.21E-04	672	4.51E-05	739	5.00E-06
405	4.30E-06	472	7.80E-05	539	2.04E-04	606	2.23E-04	673	4.30E-05	740	4.70E-06
406	5.00E-06	473	7.50E-05	540	2.05E-04	607	2.51E-04	674	4.08E-05	741	4.70E-06
407	5.60E-06	474	7.24E-05	541	2.07E-04	608	3.16E-04	675	3.85E-05	742	4.60E-06
408	5.80E-06	475	7.13E-05	542	2.07E-04	609	3.45E-04	676	3.73E-05	743	4.40E-06
409	7.20E-06	476	6.97E-05	543	2.07E-04	610	2.92E-04	677	3.63E-05	744	4.30E-06
410	7.60E-06	477	6.94E-05	544	2.08E-04	611	2.72E-04	678	3.49E-05	745	4.10E-06
411	8.60E-06	478	6.89E-05	545	2.10E-04	612	3.72E-04	679	3.32E-05	746	3.90E-06
412	9.10E-06	479	6.85E-05	546	2.10E-04	613	5.32E-04	680	3.20E-05	747	3.90E-06
413	1.05E-05	480	6.87E-05	547	2.11E-04	614	5.14E-04	681	3.11E-05	748	4.00E-06
414	1.13E-05	481	6.99E-05	548	2.12E-04	615	3.66E-04	682	2.99E-05	749	3.50E-06
415	1.27E-05	482	7.10E-05	549	2.13E-04	616	2.76E-04	683	2.90E-05	750	3.40E-06
416	1.49E-05	483	7.21E-05	550	2.14E-04	617	2.46E-04	684	2.82E-05	751	3.60E-06
417	1.66E-05	484	7.41E-05	551	2.15E-04	618	2.41E-04	685	2.74E-05	752	3.20E-06
418	1.81E-05	485	7.54E-05	552	2.17E-04	619	2.46E-04	686	2.67E-05	753	3.40E-06
419	1.98E-05	486	7.84E-05	553	2.18E-04	620	2.39E-04	687	2.57E-05	754	3.30E-06
420	2.21E-05	487	8.04E-05	554	2.18E-04	621	2.30E-04	688	2.48E-05	755	3.00E-06
421	2.43E-05	488	8.39E-05	555	2.19E-04	622	2.24E-04	689	2.38E-05	756	2.90E-06
422	2.67E-05	489	8.59E-05	556	2.20E-04	623	2.27E-04	690	2.31E-05	757	3.00E-06
423	2.94E-05	490	8.99E-05	557	2.22E-04	624	2.35E-04	691	2.25E-05	758	2.80E-06
424	3.22E-05	491	9.35E-05	558	2.23E-04	625	2.41E-04	692	2.18E-05	759	2.40E-06
425	3.55E-05	492	9.61E-05	559	2.23E-04	626	2.46E-04	693	2.12E-05	760	2.70E-06
426	3.99E-05	493	1.00E-04	560	2.24E-04	627	2.51E-04	694	2.09E-05	761	2.50E-06
427	4.37E-05	494	1.04E-04	561	2.25E-04	628	2.85E-04	695	1.98E-05	762	2.40E-06
428	4.87E-05	495	1.08E-04	562	2.25E-04	629	4.56E-04	696	1.93E-05	763	2.60E-06
429	5.31E-05	496	1.12E-04	563	2.27E-04	630	8.40E-04	697	1.86E-05	764	2.80E-06
430	5.92E-05	497	1.16E-04	564	2.26E-04	631	9.76E-04	698	1.80E-05	765	2.20E-06
431	6.45E-05	498	1.20E-04	565	2.27E-04	632	6.70E-04	699	1.74E-05	766	2.20E-06
432	6.98E-05	499	1.25E-04	566	2.28E-04	633	4.25E-04	700	1.68E-05	767	2.10E-06
433	7.59E-05	500	1.29E-04	567	2.29E-04	634	5.45E-04	701	1.63E-05	768	2.30E-06
434	8.11E-05	501	1.33E-04	568	2.30E-04	635	7.03E-04	702	1.59E-05	769	2.10E-06
435	8.79E-05	502	1.37E-04	569	2.30E-04	636	5.11E-04	703	1.56E-05	770	2.00E-06
436	9.68E-05	503	1.41E-04	570	2.31E-04	637	2.80E-04	704	1.46E-05	771	1.90E-06
437	1.05E-04	504	1.44E-04	571	2.31E-04	638	1.89E-04	705	1.44E-05	772	1.80E-06
438	1.15E-04	505	1.48E-04	572	2.32E-04	639	1.55E-04	706	1.37E-05	773	1.90E-06
439	1.27E-04	506	1.52E-04	573	2.32E-04	640	1.39E-04	707	1.35E-05	774	1.90E-06
440	1.41E-04	507	1.55E-04	574	2.33E-04	641	1.30E-04	708	1.29E-05	775	1.80E-06
441	1.52E-04	508	1.57E-04	575	2.32E-04	642	1.24E-04	709	1.25E-05	776	1.70E-06
442	1.66E-04	509	1.62E-04	576	2.30E-04	643	1.20E-04	710	1.23E-05	777	1.60E-06
443	1.80E-04	510	1.63E-04	577	2.31E-04	644	1.18E-04	711	1.20E-05	778	1.70E-06
444	1.93E-04	511	1.66E-04	578	2.32E-04	645	1.20E-04	712	1.16E-05	779	1.70E-06
445	2.07E-04	512	1.68E-04	579	2.31E-04	646	1.60E-04	713	1.09E-05	780	1.70E-06
446	2.18E-04	513	1.71E-04	580	2.32E-04	647	2.38E-04	714	1.07E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM2B @30W3500K	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

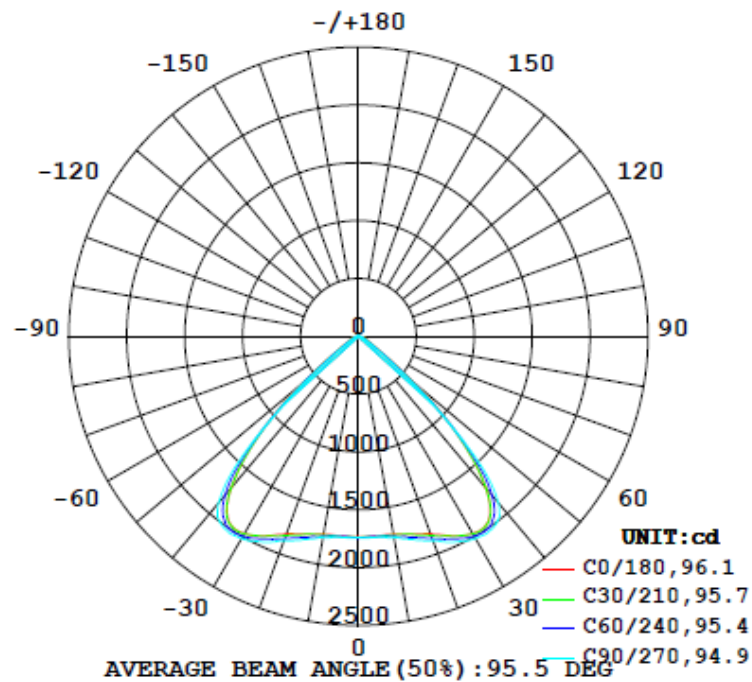
Test Result

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°)
4095	95.6	109.2	70.3	93.1	133.4	99.4%

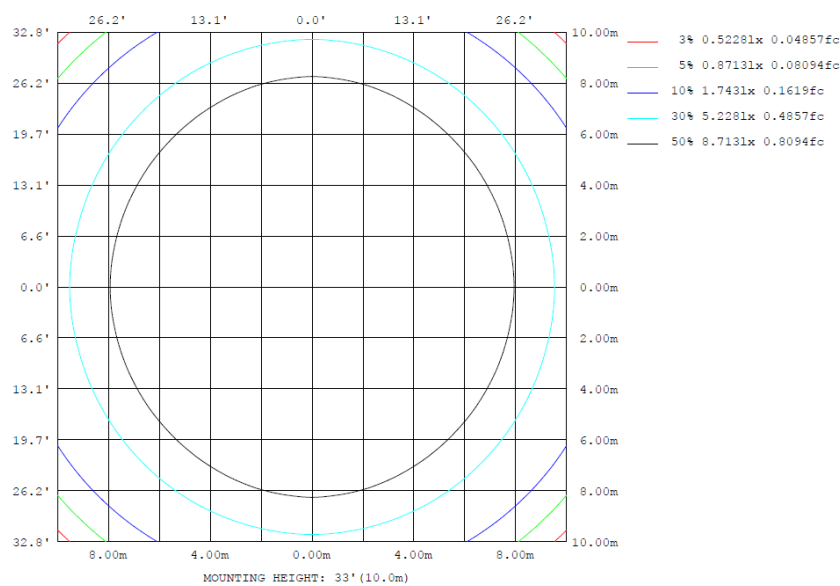
4.2 Goniophotometer Test

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	1739	1759	1768	1759	1739	1759	1768	1759	0- 10	166.2	166.2	4.06, 4.06
20	1819	1850	1879	1850	1819	1850	1879	1850	10- 20	509.0	675.3	16.5, 16.5
30	1970	1986	2018	1986	1970	1986	2018	1986	20- 30	891.4	1567	38.3, 38.3
40	1712	1742	1882	1742	1712	1742	1882	1742	30- 40	1219	2785	68, 68
50	631.6	590.4	503.0	590.4	631.6	590.4	503.0	590.4	40- 50	931.4	3717	90.8, 90.8
60	126.2	111.2	77.56	111.2	126.2	111.2	77.56	111.2	50- 60	227.1	3944	96.3, 96.3
70	61.23	51.53	38.52	51.53	61.23	51.53	38.52	51.53	60- 70	71.64	4015	98.1, 98.1
80	18.53	25.01	23.80	25.01	18.53	25.01	23.80	25.01	70- 80	37.75	4053	99, 99
90	2.999	11.93	13.19	11.93	2.999	11.93	13.19	11.93	80- 90	17.34	4070	99.4, 99.4
100	2.316	5.160	11.23	5.160	2.316	5.160	11.23	5.160	90-100	7.273	4078	99.6, 99.6
110	1.930	1.431	4.961	1.431	1.930	1.431	4.961	1.431	100-110	3.498	4081	99.7, 99.7
120	3.757	1.241	1.047	1.241	3.757	1.241	1.047	1.241	110-120	1.718	4083	99.7, 99.7
130	7.424	1.622	1.426	1.622	7.424	1.622	1.426	1.622	120-130	1.596	4085	99.7, 99.7
140	9.933	3.337	2.761	3.337	9.933	3.337	2.761	3.337	130-140	2.394	4087	99.8, 99.8
150	10.90	4.199	3.997	4.199	10.90	4.199	3.997	4.199	140-150	3.001	4090	99.9, 99.9
160	10.81	4.199	3.998	4.199	10.81	4.199	3.998	4.199	150-160	2.367	4092	99.9, 99.9
170	15.91	6.772	5.616	6.772	15.91	6.772	5.616	6.772	160-170	1.796	4094	100, 100
180	16.50	7.533	6.187	7.533	16.50	7.533	6.187	7.533	170-180	0.8045	4095	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	166.24	0-10	166.24	4.06%
10-20	509.03	0-20	675.27	16.49%
20-30	891.35	0-30	1566.62	38.27%
30-40	1218.61	0-40	2785.23	68.03%
40-50	931.39	0-50	3716.62	90.78%
50-60	227.12	0-60	3943.74	96.33%
60-70	71.64	0-70	4015.38	98.08%
70-80	37.75	0-80	4053.13	99.00%
80-90	17.34	0-90	4070.47	99.42%
90-100	7.27	0-100	4077.74	99.60%
100-110	3.50	0-110	4081.24	99.69%
110-120	1.72	0-120	4082.96	99.73%
120-130	1.60	0-130	4084.56	99.77%
130-140	2.39	0-140	4086.95	99.82%
140-150	3.00	0-150	4089.95	99.90%
150-160	2.37	0-160	4092.32	99.96%
160-170	1.80	0-170	4094.12	100.00%
170-180	0.81	0-180	4094.93	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	1738	1733	1739	1743	1743	1733	1739	1733	1743	1743	1739	1733	1738	1733	1739	1743	1743	1733	1739
5	1732	1729	1742	1741	1740	1737	1743	1737	1740	1741	1742	1729	1732	1729	1742	1741	1740	1737	1743
10	1739	1732	1747	1759	1758	1753	1768	1753	1758	1759	1747	1732	1739	1732	1747	1759	1758	1753	1768
15	1769	1759	1772	1793	1799	1797	1815	1797	1799	1793	1772	1759	1769	1759	1772	1793	1799	1797	1815
20	1819	1821	1832	1850	1862	1864	1879	1864	1862	1850	1832	1821	1819	1821	1832	1850	1862	1864	1879
25	1904	1903	1908	1926	1932	1938	1962	1938	1932	1926	1908	1903	1904	1903	1908	1926	1932	1938	1962
30	1970	1965	1973	1986	1996	1999	2018	1999	1996	1986	1973	1965	1970	1965	1973	1986	1996	1999	2018
35	1953	1950	1959	1975	1995	2005	2024	2005	1995	1975	1959	1950	1953	1950	1959	1975	1995	2005	2024
40	1712	1707	1716	1742	1792	1842	1882	1842	1792	1742	1716	1707	1712	1707	1716	1742	1792	1842	1882
45	1231	1222	1229	1245	1264	1278	1290	1278	1264	1245	1229	1222	1231	1222	1229	1245	1264	1278	1290
50	632	622	609	590	574	521	503	521	574	590	609	622	632	622	609	590	574	521	503
55	239	241	232	221	207	182	168	182	207	221	232	241	239	241	232	221	207	182	168
60	126	128	119	111	98.6	84.7	77.6	84.7	98.6	111	119	128	126	128	119	111	98.6	84.7	77.6
65	86.8	83.7	78.4	72.0	61.9	52.9	49.1	52.9	61.9	72.0	78.4	83.7	86.8	83.7	78.4	72.0	61.9	52.9	49.1
70	61.2	60.5	57.4	51.5	44.4	38.1	38.5	38.1	44.4	51.5	57.4	60.5	61.2	60.5	57.4	51.5	44.4	38.1	38.5
75	45.2	38.5	37.8	36.7	32.2	27.6	28.6	27.6	32.2	36.7	37.8	38.5	45.2	38.5	37.8	36.7	32.2	27.6	28.6
80	18.5	21.7	24.0	25.0	27.6	24.8	23.8	24.8	27.6	25.0	24.0	21.7	18.5	21.7	24.0	25.0	27.6	24.8	23.8
85	10.5	12.5	16.0	15.9	16.5	15.0	21.2	15.0	16.5	15.9	16.0	12.5	10.5	12.5	16.0	15.9	16.5	15.0	21.2
90	3.00	6.16	13.9	11.9	9.94	9.61	13.2	9.61	9.94	11.9	13.9	6.16	3.00	6.16	13.9	11.9	9.94	9.61	13.2
95	2.41	3.17	5.72	6.31	6.68	7.79	11.6	7.79	6.68	6.31	5.72	3.17	2.41	3.17	5.72	6.31	6.68	7.79	11.6
100	2.32	2.11	2.96	5.16	7.15	9.21	11.2	9.21	7.15	5.16	2.96	2.11	2.32	2.11	2.96	5.16	7.15	9.21	11.2
105	2.03	1.91	1.53	1.91	3.16	4.94	6.77	4.94	3.16	1.91	1.53	1.91	2.03	1.91	1.53	1.91	3.16	4.94	6.77
110	1.93	1.72	1.52	1.43	1.81	3.52	4.96	3.52	1.81	1.43	1.52	1.72	1.93	1.72	1.52	1.43	1.81	3.52	4.96
115	2.12	1.72	1.52	1.24	1.14	2.00	2.67	2.00	1.14	1.24	1.52	1.72	2.12	1.72	1.52	1.24	1.14	2.00	2.67
120	3.76	1.72	1.52	1.24	1.05	1.14	1.05	1.14	1.05	1.24	1.52	1.72	3.76	1.72	1.52	1.24	1.05	1.14	1.05
125	5.88	2.01	1.52	1.24	1.14	1.14	1.24	1.14	1.24	1.24	1.52	2.01	5.88	2.01	1.52	1.24	1.14	1.14	1.24
130	7.42	2.68	1.81	1.62	1.52	1.42	1.43	1.42	1.52	1.62	1.81	2.68	7.42	2.68	1.81	1.62	1.52	1.42	1.43
135	8.78	3.63	2.66	2.38	2.38	2.09	2.09	2.38	2.38	2.66	3.63	8.78	3.63	2.66	2.38	2.38	2.09	2.09	2.09
140	9.93	4.68	3.71	3.34	3.05	3.13	2.76	3.13	3.05	3.34	3.71	4.68	9.93	4.68	3.71	3.34	3.05	3.13	2.76
145	10.8	5.93	4.66	4.20	3.91	3.80	3.71	3.80	3.91	4.20	4.66	5.93	10.8	5.93	4.66	4.20	3.91	3.80	3.71
150	10.9	6.13	4.85	4.20	4.10	4.09	4.00	4.09	4.10	4.20	4.85	6.13	10.9	6.13	4.85	4.20	4.10	4.09	4.00
155	10.9	6.22	4.85	4.20	4.10	4.09	4.00	4.09	4.10	4.20	4.85	6.22	10.9	6.22	4.85	4.20	4.10	4.09	4.00
160	10.8	5.65	4.66	4.20	4.10	4.09	4.00	4.09	4.10	4.20	4.66	5.65	10.8	5.65	4.66	4.20	4.10	4.09	4.00
165	14.1	8.43	6.37	5.43	4.96	4.93	4.85	4.93	4.96	5.43	6.37	8.43	14.1	8.43	6.37	5.43	4.96	4.93	4.85
170	15.9	10.8	7.80	6.77	6.01	5.89	5.62	5.89	6.01	6.77	7.80	10.8	15.9	10.8	7.80	6.77	6.01	5.89	5.62
175	16.5	11.6	8.66	7.16	6.48	6.18	6.19	6.18	6.48	7.16	8.66	11.6	16.5	11.6	8.66	7.16	6.48	6.18	6.19
180	16.5	11.6	8.56	7.53	6.58	6.37	6.19	6.37	6.58	7.53	8.56	11.6	16.5	11.6	8.56	7.53	6.58	6.37	6.19

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	1733	1743	1743	1739	1733														
5	1737	1740	1741	1742	1729														
10	1753	1758	1759	1747	1732														
15	1797	1799	1793	1772	1759														
20	1864	1862	1850	1832	1821														
25	1938	1932	1926	1908	1903														
30	1999	1996	1986	1973	1965														
35	2005	1995	1975	1959	1950														
40	1842	1792	1742	1716	1707														
45	1278	1264	1245	1229	1222														
50	521	574	590	609	622														
55	182	207	221	232	241														
60	84.7	98.6	111	119	128														
65	52.9	61.9	72.0	78.4	83.7														
70	38.1	44.4	51.5	57.4	60.5														
75	27.6	32.2	36.7	37.8	38.5														
80	24.8	27.6	25.0	24.0	21.7														
85	15.0	16.5	15.9	16.0	12.5														
90	9.61	9.94	11.9	13.9	6.16														
95	7.79	6.68	6.31	5.72	3.17														
100	9.21	7.15	5.16	2.96	2.11														
105	4.94	3.16	1.91	1.53	1.91														
110	3.52	1.81	1.43	1.52	1.72														
115	2.00	1.14	1.24	1.52	1.72														
120	1.14	1.05	1.24	1.52	1.72														
125	1.14	1.24	1.24	1.52	2.01														
130	1.42	1.52	1.62	1.81	2.68														
135	2.09	2.38	2.38	2.66	3.63														
140	3.13	3.05	3.34	3.71	4.68														
145	3.80	3.91	4.20	4.66	5.93														
150	4.09	4.10	4.20	4.85	6.13														
155	4.09	4.10	4.20	4.85	6.22														
160	4.09	4.10	4.20	4.66	5.65														
165	4.93	4.96	5.43	6.37	8.43														
170	5.89	6.01	6.77	7.80	10.8														
175	6.18	6.48	7.16	8.66	11.6														
180	6.37	6.58	7.53	8.56	11.6														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM2B @30W3500K	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	9.50

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*****