

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		5715
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	150.4
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		38.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.79
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	2725±145	2780
			4 steps	2725±83	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		91.7
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		56
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		101
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-6%
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		0.321
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		38.0
(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 @40W2700K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @40W2700K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @40W2700K	-	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 @40W2700K, 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 @40W2700K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

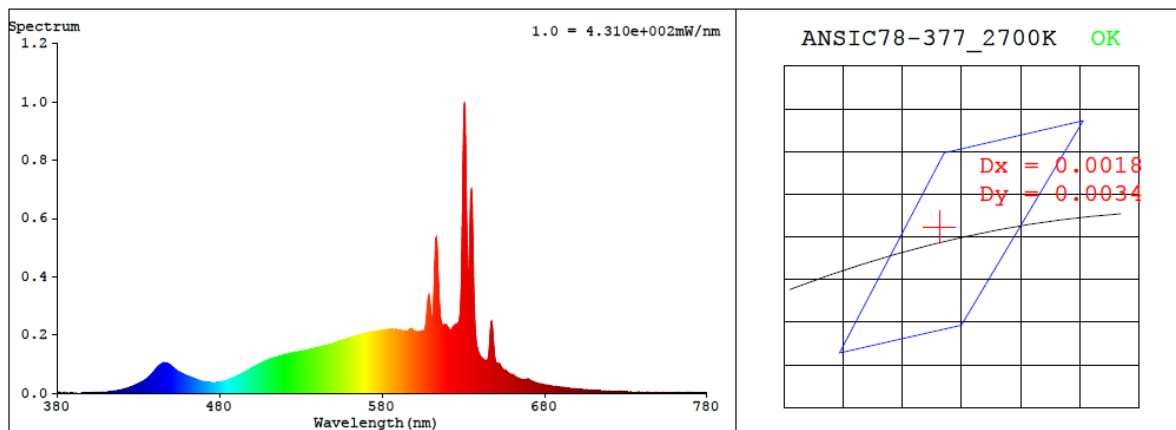
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.321	38.0	0.986

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
2780	91.7	56	0.0011	2.5	89	101	-6%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4553$ $y = 0.4124$ / $u' = 0.2587$ $v' = 0.5274$ ($duv = 1.09e-03$)

CCT= 2780K Prcp WL: $L_d = 583.5nm$ Purity=60.5%

Peak WL: $L_p = 631nm$ FWHM: $\approx 3.6nm$ Ratio: $R = 26.2\%$ $G = 71.7\%$ $B = 2.1\%$

Render Index: $R_a = 91.7$ $AvgR = 88.3$ TM30: $R_f = 89$ $R_g = 101$

EEL: 0.09073 A++ Highest

R1 = 93 R2 = 94 R3 = 93 R4 = 94 R5 = 92 R6 = 94 R7 = 92

R8 = 82 R9 = 56 R10 = 84 R11 = 95 R12 = 82 R13 = 92 R14 = 95 R15 = 88

4.1 Integrating Sphere Test

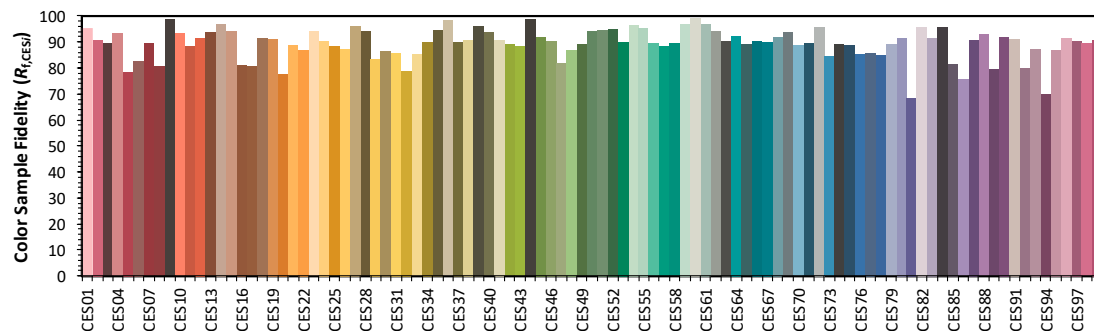
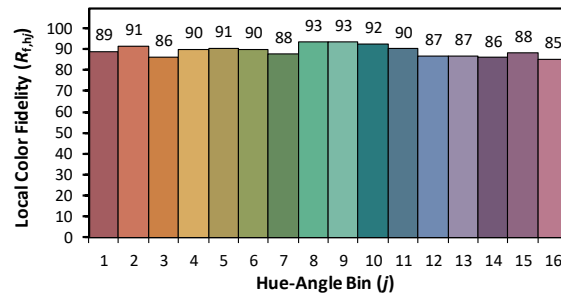
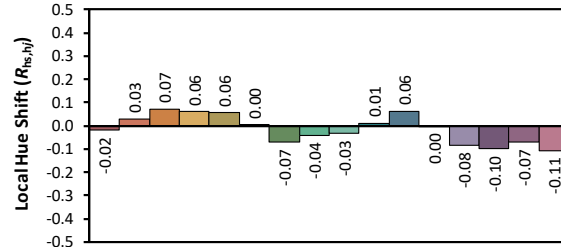
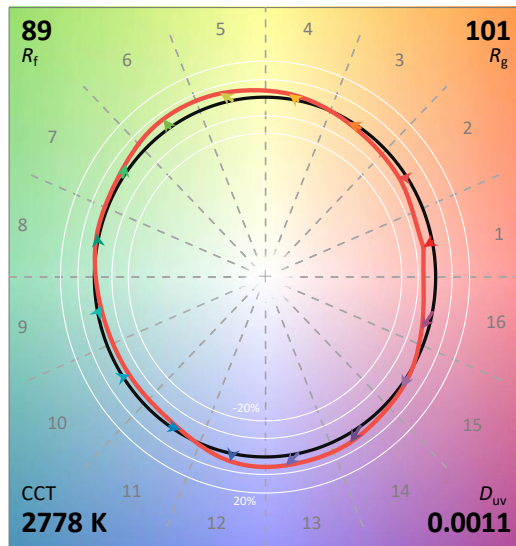
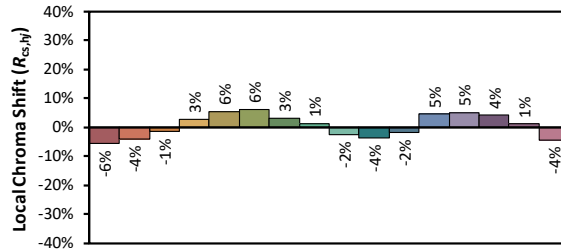
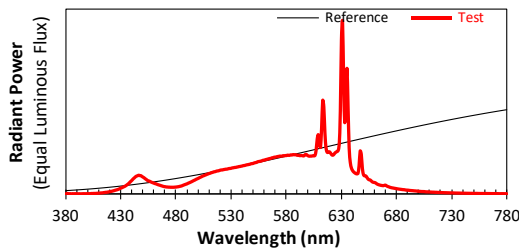
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @40W2700K



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

x 0.4553
 y 0.4123
 u' 0.2588
 v' 0.5273

CIE 13.3-1995
(CRI)

R_a 92
 R_g 56

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	1.02E-04	514	1.23E-04	581	2.17E-04	648	2.21E-04	715	9.10E-06
381	2.70E-06	448	1.02E-04	515	1.24E-04	582	2.16E-04	649	1.43E-04	716	9.10E-06
382	1.60E-06	449	9.75E-05	516	1.26E-04	583	2.16E-04	650	1.08E-04	717	8.70E-06
383	9.00E-07	450	9.37E-05	517	1.28E-04	584	2.18E-04	651	1.01E-04	718	8.30E-06
384	1.40E-06	451	8.97E-05	518	1.29E-04	585	2.17E-04	652	1.01E-04	719	8.10E-06
385	2.00E-07	452	8.45E-05	519	1.30E-04	586	2.20E-04	653	9.34E-05	720	7.80E-06
386	1.40E-06	453	8.04E-05	520	1.33E-04	587	2.19E-04	654	8.44E-05	721	7.40E-06
387	8.00E-07	454	7.53E-05	521	1.34E-04	588	2.19E-04	655	7.95E-05	722	7.20E-06
388	1.30E-06	455	7.28E-05	522	1.34E-04	589	2.18E-04	656	7.81E-05	723	7.00E-06
389	1.10E-06	456	7.06E-05	523	1.36E-04	590	2.16E-04	657	7.30E-05	724	6.80E-06
390	1.10E-06	457	6.73E-05	524	1.37E-04	591	2.17E-04	658	6.74E-05	725	6.70E-06
391	6.00E-07	458	6.45E-05	525	1.38E-04	592	2.14E-04	659	6.49E-05	726	6.40E-06
392	9.00E-07	459	6.22E-05	526	1.39E-04	593	2.14E-04	660	6.38E-05	727	6.30E-06
393	6.00E-07	460	5.97E-05	527	1.40E-04	594	2.15E-04	661	6.14E-05	728	6.00E-06
394	6.00E-07	461	5.74E-05	528	1.42E-04	595	2.13E-04	662	5.66E-05	729	5.90E-06
395	1.00E-06	462	5.58E-05	529	1.42E-04	596	2.13E-04	663	5.34E-05	730	5.70E-06
396	1.30E-06	463	5.29E-05	530	1.44E-04	597	2.19E-04	664	5.11E-05	731	5.70E-06
397	1.10E-06	464	5.08E-05	531	1.46E-04	598	2.21E-04	665	4.93E-05	732	5.40E-06
398	1.00E-06	465	4.90E-05	532	1.46E-04	599	2.16E-04	666	4.78E-05	733	5.10E-06
399	1.30E-06	466	4.68E-05	533	1.48E-04	600	2.12E-04	667	4.69E-05	734	4.90E-06
400	1.50E-06	467	4.49E-05	534	1.48E-04	601	2.11E-04	668	4.62E-05	735	4.80E-06
401	1.30E-06	468	4.28E-05	535	1.50E-04	602	2.12E-04	669	4.81E-05	736	4.70E-06
402	1.50E-06	469	4.12E-05	536	1.51E-04	603	2.12E-04	670	4.89E-05	737	4.50E-06
403	2.30E-06	470	4.04E-05	537	1.53E-04	604	2.13E-04	671	4.49E-05	738	4.50E-06
404	2.30E-06	471	3.90E-05	538	1.54E-04	605	2.13E-04	672	4.17E-05	739	4.20E-06
405	2.70E-06	472	3.87E-05	539	1.55E-04	606	2.15E-04	673	3.97E-05	740	4.10E-06
406	2.90E-06	473	3.79E-05	540	1.56E-04	607	2.44E-04	674	3.71E-05	741	3.90E-06
407	2.90E-06	474	3.78E-05	541	1.58E-04	608	3.07E-04	675	3.54E-05	742	3.90E-06
408	3.50E-06	475	3.73E-05	542	1.59E-04	609	3.31E-04	676	3.39E-05	743	3.70E-06
409	3.90E-06	476	3.73E-05	543	1.61E-04	610	2.77E-04	677	3.29E-05	744	3.60E-06
410	4.20E-06	477	3.72E-05	544	1.63E-04	611	2.62E-04	678	3.16E-05	745	3.50E-06
411	4.90E-06	478	3.75E-05	545	1.64E-04	612	3.69E-04	679	3.06E-05	746	3.40E-06
412	5.70E-06	479	3.80E-05	546	1.65E-04	613	5.21E-04	680	2.94E-05	747	3.30E-06
413	5.80E-06	480	3.86E-05	547	1.66E-04	614	4.86E-04	681	2.82E-05	748	3.20E-06
414	7.10E-06	481	3.95E-05	548	1.69E-04	615	3.41E-04	682	2.72E-05	749	3.10E-06
415	7.80E-06	482	4.04E-05	549	1.70E-04	616	2.57E-04	683	2.63E-05	750	2.80E-06
416	9.00E-06	483	4.18E-05	550	1.71E-04	617	2.33E-04	684	2.56E-05	751	2.90E-06
417	9.30E-06	484	4.33E-05	551	1.74E-04	618	2.33E-04	685	2.46E-05	752	2.80E-06
418	1.04E-05	485	4.48E-05	552	1.75E-04	619	2.36E-04	686	2.39E-05	753	3.00E-06
419	1.17E-05	486	4.75E-05	553	1.77E-04	620	2.29E-04	687	2.35E-05	754	2.60E-06
420	1.26E-05	487	5.00E-05	554	1.80E-04	621	2.20E-04	688	2.22E-05	755	2.50E-06
421	1.42E-05	488	5.24E-05	555	1.81E-04	622	2.16E-04	689	2.14E-05	756	2.40E-06
422	1.56E-05	489	5.46E-05	556	1.82E-04	623	2.20E-04	690	2.11E-05	757	2.30E-06
423	1.73E-05	490	5.68E-05	557	1.84E-04	624	2.28E-04	691	2.05E-05	758	2.30E-06
424	1.90E-05	491	6.01E-05	558	1.86E-04	625	2.33E-04	692	1.95E-05	759	2.30E-06
425	2.11E-05	492	6.25E-05	559	1.88E-04	626	2.37E-04	693	1.89E-05	760	2.20E-06
426	2.25E-05	493	6.55E-05	560	1.89E-04	627	2.42E-04	694	1.84E-05	761	2.20E-06
427	2.48E-05	494	6.83E-05	561	1.91E-04	628	2.77E-04	695	1.79E-05	762	2.30E-06
428	2.68E-05	495	7.16E-05	562	1.93E-04	629	4.63E-04	696	1.72E-05	763	2.10E-06
429	3.04E-05	496	7.48E-05	563	1.94E-04	630	8.62E-04	697	1.68E-05	764	2.00E-06
430	3.29E-05	497	7.76E-05	564	1.96E-04	631	9.66E-04	698	1.62E-05	765	2.00E-06
431	3.55E-05	498	8.12E-05	565	1.98E-04	632	6.26E-04	699	1.54E-05	766	1.80E-06
432	3.87E-05	499	8.41E-05	566	1.99E-04	633	3.98E-04	700	1.49E-05	767	1.90E-06
433	4.12E-05	500	8.68E-05	567	2.02E-04	634	5.50E-04	701	1.44E-05	768	1.70E-06
434	4.48E-05	501	9.02E-05	568	2.03E-04	635	7.02E-04	702	1.37E-05	769	1.90E-06
435	4.90E-05	502	9.33E-05	569	2.05E-04	636	4.84E-04	703	1.34E-05	770	1.70E-06
436	5.37E-05	503	9.61E-05	570	2.06E-04	637	2.58E-04	704	1.32E-05	771	1.60E-06
437	5.87E-05	504	9.96E-05	571	2.07E-04	638	1.77E-04	705	1.31E-05	772	1.60E-06
438	6.52E-05	505	1.02E-04	572	2.09E-04	639	1.46E-04	706	1.23E-05	773	1.30E-06
439	7.11E-05	506	1.04E-04	573	2.10E-04	640	1.32E-04	707	1.17E-05	774	1.20E-06
440	7.70E-05	507	1.07E-04	574	2.11E-04	641	1.24E-04	708	1.16E-05	775	1.40E-06
441	8.40E-05	508	1.10E-04	575	2.11E-04	642	1.18E-04	709	1.12E-05	776	1.40E-06
442	8.93E-05	509	1.12E-04	576	2.11E-04	643	1.14E-04	710	1.08E-05	777	1.40E-06
443	9.52E-05	510	1.15E-04	577	2.14E-04	644	1.12E-04	711	1.04E-05	778	1.20E-06
444	9.94E-05	511	1.16E-04	578	2.13E-04	645	1.15E-04	712	1.01E-05	779	1.30E-06
445	1.02E-04	512	1.19E-04	579	2.14E-04	646	1.58E-04	713	9.70E-06	780	1.30E-06
446	1.05E-04	513	1.20E-04	580	2.15E-04	647	2.39E-04	714	9.70E-06	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @40W2700K	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	0.321	38.0	0.986
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

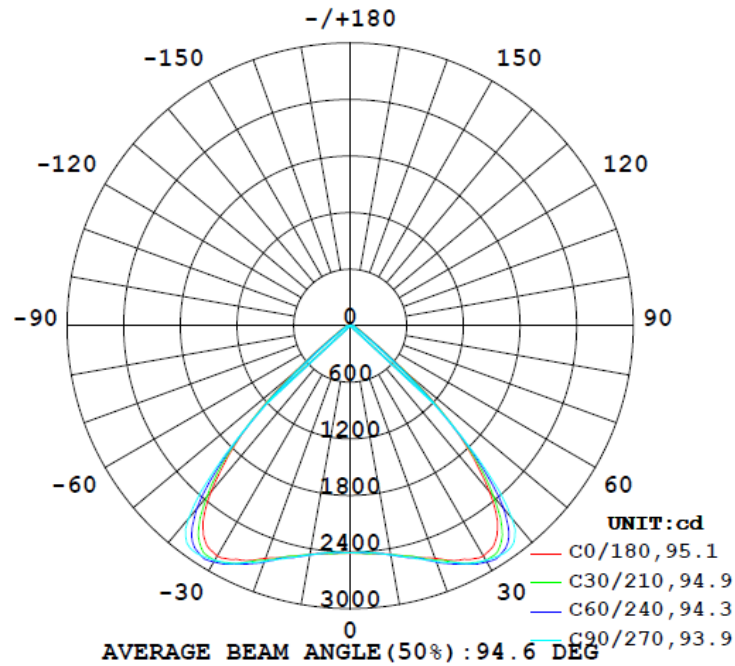
Test Result

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°)
5715	93.5	108.2	68.0	91.0	150.4	99.4%

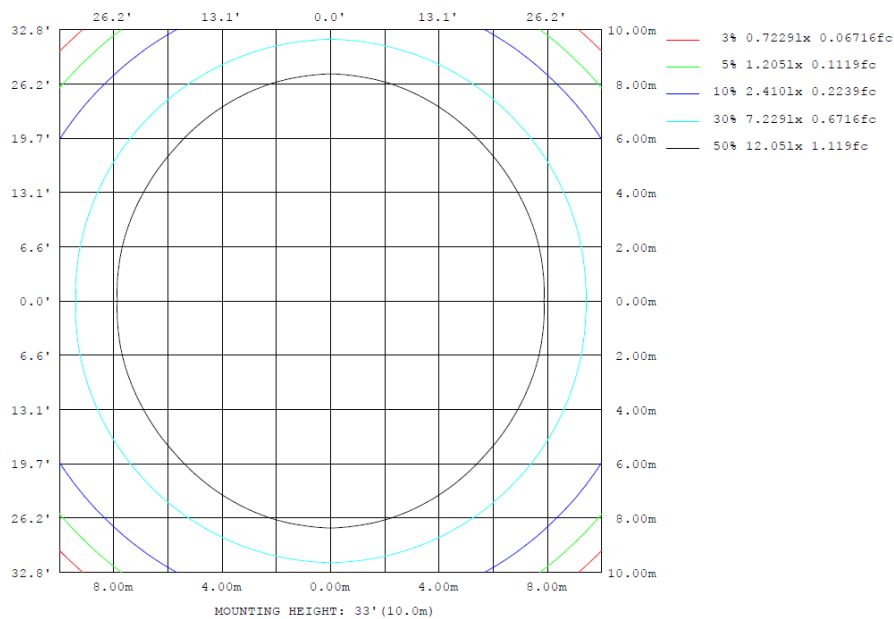
4.2 Goniophotometer Test

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,lm
10	2456	2456	2467	2456	2456	2456	2467	2456	0- 10	232.6	232.6	4.07,4.07
20	2625	2644	2658	2644	2625	2644	2658	2644	10- 20	725.2	957.8	16.8,16.8
30	2819	2879	2872	2879	2819	2879	2872	2879	20- 30	1287	2245	39.3,39.3
40	2297	2419	2665	2419	2297	2419	2665	2419	30- 40	1738	3983	69.7,69.7
50	803.3	714.6	594.3	714.6	803.3	714.6	594.3	714.6	40- 50	1240	5223	91.4,91.4
60	166.2	144.6	99.97	144.6	166.2	144.6	99.97	144.6	50- 60	282.9	5506	96.3,96.3
70	83.90	71.40	56.55	71.40	83.90	71.40	56.55	71.40	60- 70	97.69	5604	98.98
80	29.14	40.02	35.36	40.02	29.14	40.02	35.36	40.02	70- 80	53.47	5657	99.99
90	2.708	18.09	23.02	18.09	2.708	18.09	23.02	18.09	80- 90	26.48	5684	99.4,99.4
100	2.421	7.419	17.06	7.419	2.421	7.419	17.06	7.419	90-100	10.74	5694	99.6,99.6
110	3.902	1.500	6.686	1.500	3.902	1.500	6.686	1.500	100-110	4.618	5699	99.7,99.7
120	8.744	1.312	1.048	1.312	8.744	1.312	1.048	1.312	110-120	2.280	5701	99.8,99.8
130	9.685	1.686	1.238	1.686	9.685	1.686	1.238	1.686	120-130	2.220	5704	99.8,99.8
140	9.682	3.464	2.667	3.464	9.682	3.464	2.667	3.464	130-140	2.883	5706	99.8,99.8
150	10.98	4.500	3.620	4.500	10.98	4.500	3.620	4.500	140-150	3.343	5710	99.9,99.9
160	9.682	4.498	3.813	4.498	9.682	4.498	3.813	4.498	150-160	2.668	5712	99.9,99.9
170	18.98	7.027	5.620	7.027	18.98	7.027	5.620	7.027	160-170	2.038	5714	100,100
180	19.55	7.497	6.674	7.497	19.55	7.497	6.674	7.497	170-180	0.9035	5715	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	232.64	0-10	232.64	4.07%
10-20	725.19	0-20	957.83	16.76%
20-30	1287.08	0-30	2244.91	39.28%
30-40	1737.76	0-40	3982.67	69.69%
40-50	1240.45	0-50	5223.12	91.40%
50-60	282.89	0-60	5506.01	96.35%
60-70	97.69	0-70	5603.70	98.06%
70-80	53.47	0-80	5657.17	99.00%
80-90	26.48	0-90	5683.65	99.46%
90-100	10.74	0-100	5694.39	99.65%
100-110	4.62	0-110	5699.01	99.73%
110-120	2.28	0-120	5701.29	99.77%
120-130	2.22	0-130	5703.51	99.81%
130-140	2.88	0-140	5706.39	99.86%
140-150	3.34	0-150	5709.73	99.92%
150-160	2.67	0-160	5712.40	99.96%
160-170	2.04	0-170	5714.44	100.00%
170-180	0.91	0-180	5715.35	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	2410	2415	2407	2413	2406	2411	2407	2411	2406	2413	2407	2415	2410	2415	2407	2413	2406	2411	2407
5	2424	2433	2427	2422	2418	2423	2417	2423	2418	2422	2427	2433	2424	2433	2427	2422	2418	2423	2417
10	2456	2473	2462	2456	2467	2470	2467	2470	2467	2456	2462	2473	2456	2473	2462	2456	2467	2470	2467
15	2534	2541	2529	2538	2547	2555	2550	2555	2547	2538	2529	2541	2534	2541	2529	2538	2547	2555	2550
20	2625	2641	2649	2644	2664	2674	2658	2674	2664	2644	2649	2641	2625	2641	2649	2644	2664	2674	2658
25	2742	2766	2775	2778	2787	2799	2778	2799	2778	2766	2742	2766	2775	2778	2787	2799	2778	2799	2778
30	2819	2856	2873	2879	2892	2897	2872	2897	2892	2879	2873	2856	2819	2856	2873	2879	2892	2897	2872
35	2713	2764	2793	2819	2875	2920	2908	2920	2875	2819	2793	2764	2713	2764	2793	2819	2875	2920	2908
40	2297	2347	2366	2419	2533	2623	2665	2623	2533	2419	2366	2347	2297	2347	2366	2419	2533	2623	2665
45	1625	1651	1654	1650	1661	1669	1686	1669	1661	1650	1654	1651	1625	1651	1654	1650	1661	1669	1686
50	803	799	765	715	695	627	594	627	695	715	765	799	803	799	765	715	695	627	594
55	310	314	290	270	253	220	197	220	253	270	290	314	310	314	290	270	253	220	197
60	166	172	157	145	130	113	100.0	113	130	145	157	172	166	172	157	145	130	113	100.0
65	115	116	106	98.2	86.5	73.9	68.1	73.9	86.5	98.2	106	116	115	116	106	98.2	86.5	73.9	68.1
70	83.9	83.1	78.2	71.4	63.2	54.7	56.6	54.7	63.2	71.4	78.2	83.1	83.9	83.1	78.2	71.4	63.2	54.7	56.6
75	64.3	52.3	52.6	50.5	46.2	40.6	41.9	40.6	46.2	50.5	52.6	52.3	64.3	52.3	52.6	50.5	46.2	40.6	41.9
80	29.1	29.8	37.5	40.0	41.9	38.8	35.4	38.8	41.9	40.0	37.5	29.8	29.1	29.8	37.5	40.0	41.9	38.8	35.4
85	14.2	18.0	24.2	23.8	24.3	22.5	36.3	22.5	24.3	23.8	24.2	18.0	14.2	18.0	24.2	23.8	24.3	22.5	36.3
90	2.71	8.59	20.3	18.1	15.1	14.7	23.0	14.7	15.1	18.1	20.3	8.59	2.71	8.59	20.3	18.1	15.1	14.7	23.0
95	2.42	3.40	8.25	9.30	10.3	11.3	18.7	11.3	10.3	9.30	8.25	3.40	2.42	3.40	8.25	9.30	10.3	11.3	18.7
100	2.42	1.98	3.56	7.42	10.6	13.5	17.1	13.5	10.6	7.42	3.56	1.98	2.42	1.98	3.56	7.42	10.6	13.5	17.1
105	2.61	1.88	1.78	2.26	3.99	6.77	9.84	6.77	3.99	2.26	1.78	1.88	2.61	1.88	1.78	2.26	3.99	6.77	9.84
110	3.90	1.88	1.69	1.50	2.00	4.38	6.69	4.38	2.00	1.50	1.69	1.88	3.90	1.88	1.69	1.50	2.00	4.38	6.69
115	6.60	1.88	1.69	1.31	1.14	2.01	3.16	2.01	1.14	1.31	1.69	1.88	6.60	1.88	1.69	1.31	1.14	2.01	3.16
120	8.74	2.92	1.69	1.31	1.13	1.05	1.05	1.05	1.13	1.31	1.69	2.92	8.74	2.92	1.69	1.31	1.13	1.05	1.05
125	9.77	4.14	1.69	1.31	1.13	1.05	1.05	1.05	1.13	1.31	1.69	4.14	9.77	4.14	1.69	1.31	1.13	1.05	1.05
130	9.69	5.27	2.52	1.69	1.42	1.43	1.24	1.43	1.42	1.69	2.52	5.27	9.69	5.27	2.52	1.69	1.42	1.43	1.24
135	9.68	6.49	3.18	2.53	2.55	2.38	1.81	2.38	2.55	2.53	3.18	6.49	9.68	6.49	3.18	2.53	2.55	2.38	1.81
140	9.68	7.53	4.03	3.46	3.12	3.23	2.67	3.23	3.12	3.46	4.03	7.53	9.68	7.53	4.03	3.46	3.12	3.23	2.67
145	10.3	8.66	4.78	4.22	4.07	4.09	3.24	4.09	4.07	4.22	4.78	8.66	10.3	8.66	4.78	4.22	4.07	4.09	3.24
150	11.0	8.94	5.34	4.50	4.35	4.28	3.62	4.28	4.35	4.50	5.34	8.94	11.0	8.94	5.34	4.50	4.35	4.28	3.62
155	10.3	9.04	5.34	4.50	4.44	4.38	3.81	4.38	4.44	4.50	5.34	9.04	10.3	9.04	5.34	4.50	4.44	4.38	3.81
160	9.68	8.57	5.34	4.50	4.44	4.38	3.81	4.38	4.44	4.50	5.34	8.57	9.68	8.57	5.34	4.50	4.44	4.38	3.81
165	14.5	11.9	6.93	5.81	5.57	5.70	4.76	5.70	5.57	5.81	6.93	11.9	14.5	11.9	6.93	5.81	5.57	5.70	4.76
170	19.0	14.1	8.15	7.03	6.43	6.18	5.62	6.18	6.43	7.03	8.15	14.1	19.0	14.1	8.15	7.03	6.43	6.18	5.62
175	19.5	14.7	8.62	7.59	7.19	6.85	6.10	6.85	7.19	7.59	8.62	14.7	19.5	14.7	8.62	7.59	7.19	6.85	6.10
180	19.6	14.7	8.72	7.50	7.56	7.14	6.67	7.14	7.56	7.50	8.72	14.7	19.6	14.7	8.72	7.50	7.56	7.14	6.67

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	2411	2406	2413	2407	2415														
5	2423	2418	2422	2427	2433														
10	2470	2467	2456	2462	2473														
15	2555	2547	2538	2529	2541														
20	2674	2664	2644	2649	2641														
25	2799	2787	2778	2775	2766														
30	2897	2892	2879	2873	2856														
35	2920	2875	2819	2793	2764														
40	2623	2533	2419	2366	2347														
45	1669	1661	1650	1654	1651														
50	627	695	715	765	799														
55	220	253	270	290	314														
60	113	130	145	157	172														
65	73.9	86.5	98.2	106	116														
70	54.7	63.2	71.4	78.2	83.1														
75	40.6	46.2	50.5	52.6	52.3														
80	38.8	41.9	40.0	37.5	29.8														
85	22.5	24.3	23.8	24.2	18.0														
90	14.7	15.1	18.1	20.3	8.59														
95	11.3	10.3	9.30	8.25	3.40														
100	13.5	10.6	7.42	3.56	1.98														
105	6.77	3.99	2.26	1.78	1.88														
110	4.38	2.00	1.50	1.69	1.88														
115	2.01	1.14	1.31	1.69	1.88														
120	1.05	1.13	1.31	1.69	2.92														
125	1.05	1.13	1.31	1.69	4.14														
130	1.43	1.42	1.69	2.52	5.27														
135	2.38	2.55	2.53	3.18	6.49														
140	3.23	3.12	3.46	4.03	7.53														
145	4.09	4.07	4.22	4.78	8.66														
150	4.28	4.35	4.50	5.34	8.94														
155	4.38	4.44	4.50	5.34	9.04														
160	4.38	4.44	4.50	5.34	8.57														
165	5.70	5.57	5.81	6.93	11.9														
170	6.18	6.43	7.03	8.15	14.1														
175	6.85	7.19	7.59	8.62	14.7														
180	7.14	7.56	7.50	8.72	14.7														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @40W2700K	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	0.321	38.0	0.986	9.79

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*****