

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		7995
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	138.3
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		57.8
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.63
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	3045±175	3072
			4 steps	3045±100	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.8
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		65
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		103
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-5%
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		0.485
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		57.8
(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 @60W3000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @60W3000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @60W3000K	-	251017004-S1

Remark (If any):

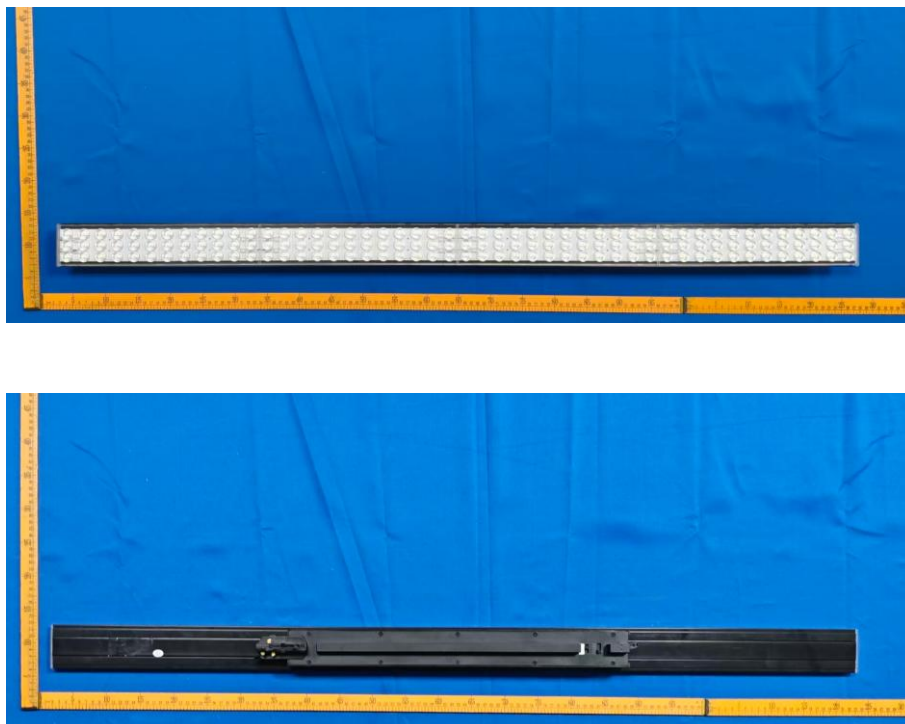
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3.0 Product Description

Luminaire Description: Model No. TKBEAM4B @60W3000K, 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 @60W3000K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

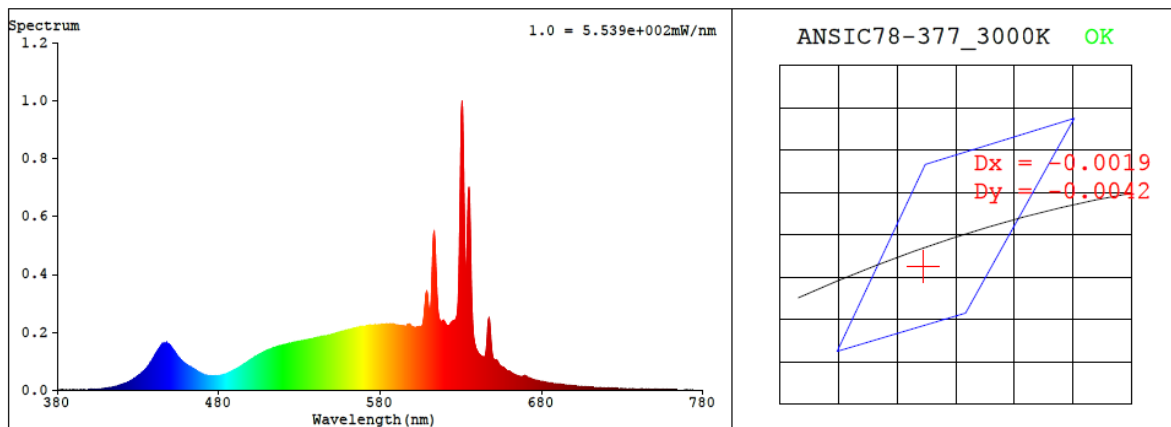
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.485	57.8	0.993

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3072	92.8	65	-0.0014	2.3	89	103	-5%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4300$ $y = 0.3981$ / $u' = 0.2486$ $v' = 0.5180$ ($duv = -1.40e-03$)

CCT= 3072K Prcp WL: $L_d = 583.0\text{nm}$ Purity=48.6%

Peak WL: $L_p = 631\text{nm}$ FWHM: $\approx 3.6\text{nm}$ Ratio: R=24.5% G=72.9% B=2.5%

Render Index: $R_a = 92.8$ AvgR = 90.0 TM30: $R_f = 89$ $R_g = 103$

EEL: 0.09836 A++ Highest

R1 =95 R2 =95 R3 =92 R4 =93 R5 =94 R6 =94 R7 =93

R8 =86 R9 =65 R10=85 R11=94 R12=83 R13=94 R14=94 R15=92

4.1 Integrating Sphere Test

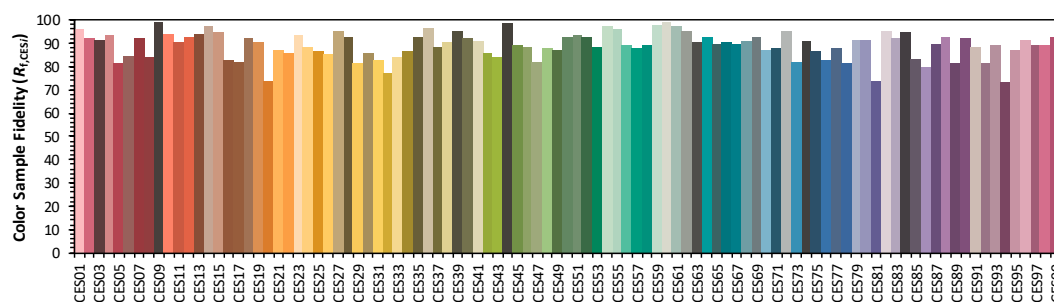
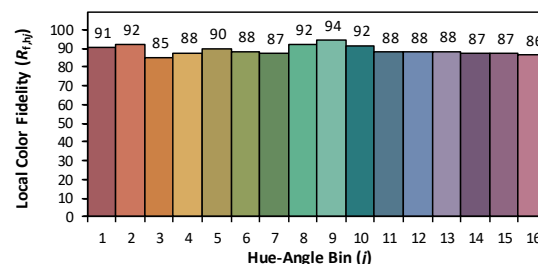
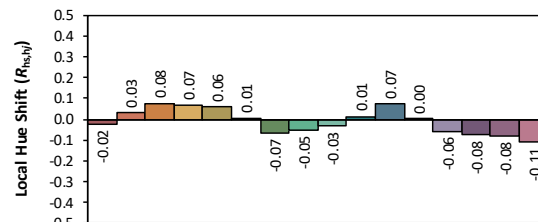
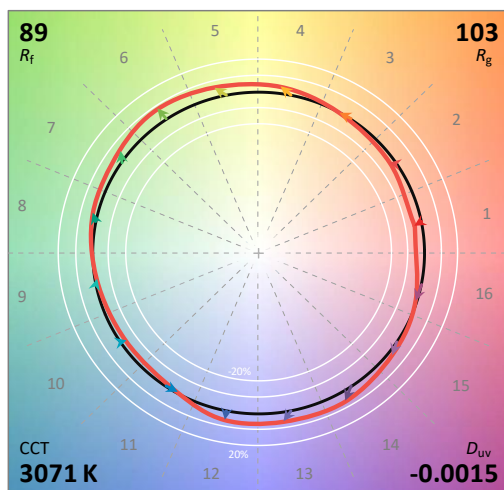
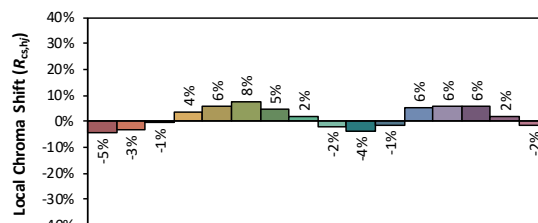
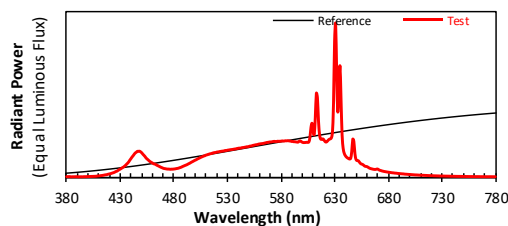
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @60W3000K



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

x 0.4300
 y 0.3980
 u' 0.2487
 v' 0.5179

CIE 13.3-1995
(CRI)

R_a 93
 R_g 65

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	1.61E-04	514	1.47E-04	581	2.27E-04	648	2.23E-04	715	9.70E-06
381	1.90E-06	448	1.63E-04	515	1.48E-04	582	2.27E-04	649	1.46E-04	716	9.40E-06
382	2.00E-06	449	1.59E-04	516	1.50E-04	583	2.27E-04	650	1.11E-04	717	9.00E-06
383	2.20E-06	450	1.53E-04	517	1.52E-04	584	2.29E-04	651	1.03E-04	718	8.70E-06
384	7.00E-07	451	1.45E-04	518	1.54E-04	585	2.28E-04	652	1.03E-04	719	8.40E-06
385	1.10E-06	452	1.38E-04	519	1.54E-04	586	2.29E-04	653	9.52E-05	720	8.20E-06
386	1.30E-06	453	1.30E-04	520	1.57E-04	587	2.28E-04	654	8.64E-05	721	8.20E-06
387	1.20E-06	454	1.21E-04	521	1.58E-04	588	2.27E-04	655	8.18E-05	722	7.60E-06
388	1.70E-06	455	1.14E-04	522	1.59E-04	589	2.26E-04	656	7.95E-05	723	7.30E-06
389	1.70E-06	456	1.08E-04	523	1.61E-04	590	2.24E-04	657	7.49E-05	724	7.10E-06
390	1.60E-06	457	1.02E-04	524	1.62E-04	591	2.24E-04	658	6.91E-05	725	7.00E-06
391	5.00E-07	458	9.64E-05	525	1.63E-04	592	2.23E-04	659	6.66E-05	726	6.70E-06
392	1.20E-06	459	9.22E-05	526	1.64E-04	593	2.23E-04	660	6.57E-05	727	6.60E-06
393	1.10E-06	460	8.83E-05	527	1.65E-04	594	2.21E-04	661	6.23E-05	728	6.10E-06
394	1.20E-06	461	8.38E-05	528	1.67E-04	595	2.20E-04	662	5.79E-05	729	6.10E-06
395	8.00E-07	462	8.17E-05	529	1.67E-04	596	2.20E-04	663	5.44E-05	730	6.10E-06
396	1.70E-06	463	7.93E-05	530	1.69E-04	597	2.26E-04	664	5.23E-05	731	5.80E-06
397	1.80E-06	464	7.47E-05	531	1.70E-04	598	2.28E-04	665	5.05E-05	732	5.70E-06
398	1.90E-06	465	7.17E-05	532	1.71E-04	599	2.23E-04	666	4.88E-05	733	5.40E-06
399	2.20E-06	466	6.80E-05	533	1.72E-04	600	2.19E-04	667	4.78E-05	734	5.20E-06
400	2.50E-06	467	6.47E-05	534	1.73E-04	601	2.17E-04	668	4.74E-05	735	5.30E-06
401	2.70E-06	468	6.11E-05	535	1.74E-04	602	2.17E-04	669	4.89E-05	736	5.00E-06
402	2.90E-06	469	5.84E-05	536	1.75E-04	603	2.18E-04	670	5.02E-05	737	5.00E-06
403	3.30E-06	470	5.53E-05	537	1.77E-04	604	2.19E-04	671	4.67E-05	738	4.50E-06
404	3.40E-06	471	5.32E-05	538	1.78E-04	605	2.18E-04	672	4.26E-05	739	4.40E-06
405	3.70E-06	472	5.23E-05	539	1.80E-04	606	2.21E-04	673	4.08E-05	740	4.40E-06
406	4.00E-06	473	5.08E-05	540	1.81E-04	607	2.49E-04	674	3.84E-05	741	4.30E-06
407	4.40E-06	474	4.98E-05	541	1.82E-04	608	3.13E-04	675	3.67E-05	742	4.10E-06
408	5.10E-06	475	4.98E-05	542	1.82E-04	609	3.39E-04	676	3.51E-05	743	4.00E-06
409	6.10E-06	476	4.91E-05	543	1.84E-04	610	2.86E-04	677	3.38E-05	744	3.80E-06
410	6.90E-06	477	4.84E-05	544	1.86E-04	611	2.68E-04	678	3.26E-05	745	3.70E-06
411	7.50E-06	478	4.93E-05	545	1.86E-04	612	3.73E-04	679	3.13E-05	746	3.60E-06
412	8.50E-06	479	4.92E-05	546	1.88E-04	613	5.28E-04	680	3.03E-05	747	3.60E-06
413	9.20E-06	480	5.01E-05	547	1.89E-04	614	4.99E-04	681	2.92E-05	748	3.40E-06
414	1.04E-05	481	5.08E-05	548	1.91E-04	615	3.53E-04	682	2.83E-05	749	3.40E-06
415	1.17E-05	482	5.23E-05	549	1.91E-04	616	2.66E-04	683	2.72E-05	750	3.20E-06
416	1.33E-05	483	5.36E-05	550	1.93E-04	617	2.39E-04	684	2.63E-05	751	3.20E-06
417	1.40E-05	484	5.48E-05	551	1.95E-04	618	2.38E-04	685	2.57E-05	752	3.30E-06
418	1.58E-05	485	5.72E-05	552	1.95E-04	619	2.41E-04	686	2.46E-05	753	2.80E-06
419	1.77E-05	486	5.96E-05	553	1.97E-04	620	2.35E-04	687	2.40E-05	754	2.90E-06
420	1.92E-05	487	6.19E-05	554	2.00E-04	621	2.25E-04	688	2.34E-05	755	2.60E-06
421	2.10E-05	488	6.54E-05	555	2.01E-04	622	2.20E-04	689	2.23E-05	756	2.60E-06
422	2.32E-05	489	6.83E-05	556	2.03E-04	623	2.24E-04	690	2.18E-05	757	2.50E-06
423	2.56E-05	490	7.13E-05	557	2.04E-04	624	2.32E-04	691	2.10E-05	758	2.50E-06
424	2.76E-05	491	7.41E-05	558	2.05E-04	625	2.38E-04	692	2.03E-05	759	2.40E-06
425	3.09E-05	492	7.67E-05	559	2.07E-04	626	2.41E-04	693	1.97E-05	760	2.30E-06
426	3.43E-05	493	8.03E-05	560	2.08E-04	627	2.47E-04	694	1.93E-05	761	2.30E-06
427	3.70E-05	494	8.40E-05	561	2.10E-04	628	2.80E-04	695	1.84E-05	762	2.10E-06
428	4.14E-05	495	8.72E-05	562	2.10E-04	629	4.62E-04	696	1.76E-05	763	2.30E-06
429	4.58E-05	496	9.16E-05	563	2.11E-04	630	8.54E-04	697	1.72E-05	764	2.10E-06
430	4.96E-05	497	9.53E-05	564	2.13E-04	631	9.69E-04	698	1.66E-05	765	2.10E-06
431	5.36E-05	498	9.88E-05	565	2.15E-04	632	6.44E-04	699	1.61E-05	766	1.80E-06
432	5.86E-05	499	1.03E-04	566	2.16E-04	633	4.09E-04	700	1.54E-05	767	1.80E-06
433	6.23E-05	500	1.06E-04	567	2.18E-04	634	5.48E-04	701	1.52E-05	768	1.80E-06
434	6.80E-05	501	1.09E-04	568	2.19E-04	635	7.03E-04	702	1.46E-05	769	1.70E-06
435	7.38E-05	502	1.13E-04	569	2.20E-04	636	4.95E-04	703	1.41E-05	770	1.70E-06
436	8.11E-05	503	1.17E-04	570	2.21E-04	637	2.67E-04	704	1.36E-05	771	1.60E-06
437	8.77E-05	504	1.20E-04	571	2.21E-04	638	1.82E-04	705	1.31E-05	772	1.70E-06
438	9.61E-05	505	1.23E-04	572	2.23E-04	639	1.50E-04	706	1.28E-05	773	1.50E-06
439	1.06E-04	506	1.26E-04	573	2.24E-04	640	1.35E-04	707	1.26E-05	774	1.60E-06
440	1.16E-04	507	1.29E-04	574	2.25E-04	641	1.26E-04	708	1.20E-05	775	1.60E-06
441	1.26E-04	508	1.32E-04	575	2.24E-04	642	1.21E-04	709	1.16E-05	776	1.60E-06
442	1.34E-04	509	1.34E-04	576	2.24E-04	643	1.16E-04	710	1.12E-05	777	1.50E-06
443	1.43E-04	510	1.38E-04	577	2.26E-04	644	1.13E-04	711	1.09E-05	778	1.40E-06
444	1.51E-04	511	1.40E-04	578	2.25E-04	645	1.17E-04	712	1.06E-05	779	1.40E-06
445	1.56E-04	512	1.42E-04	579	2.26E-04	646	1.59E-04	713	1.04E-05	780	1.40E-06
446	1.62E-04	513	1.44E-04	580	2.26E-04	647	2.38E-04	714	9.90E-06	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @60W3000K	Sample ID	251017004-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	Humidity (%RH)	41.3

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	0.485	57.8	0.993
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

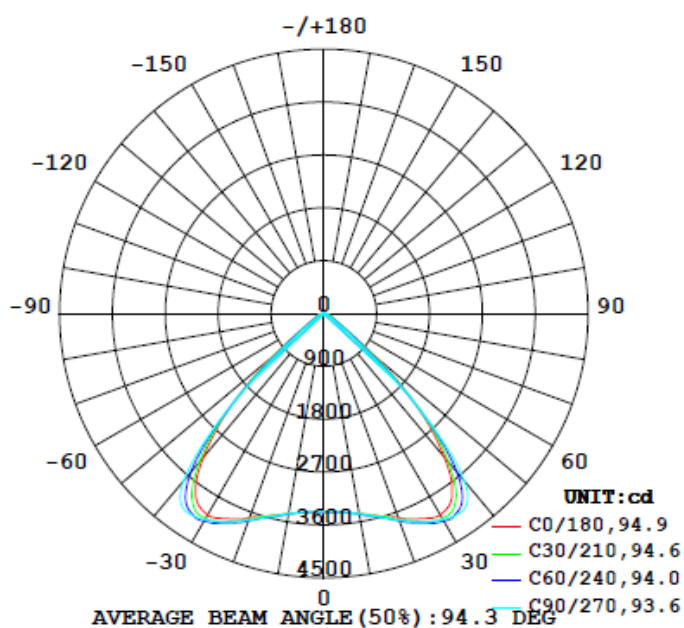
Test Result

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°)
7995	93.3	107.8	67.4	90.1	138.3	99.4%

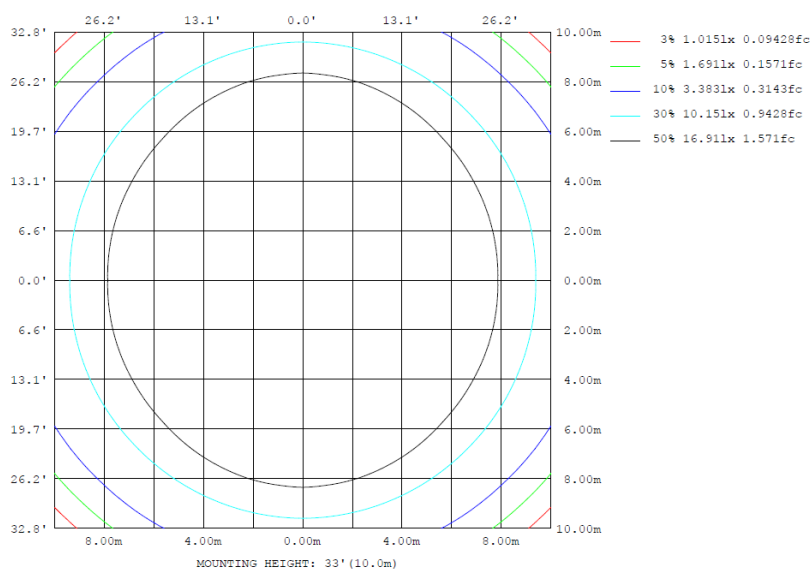
4.2 Goniophotometer Test

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	3452	3454	3461	3454	3452	3454	3461	3454	0- 10	326.5	326.5	4.08,4.08
20	3693	3731	3748	3731	3693	3731	3748	3731	10- 20	1021	1347	16.8,16.8
30	3963	4051	4053	4051	3963	4051	4053	4051	20- 30	1813	3160	39.5,39.5
40	3199	3373	3720	3373	3199	3373	3720	3373	30- 40	2437	5597	70,70
50	1101	980.0	804.5	980.0	1101	980.0	804.5	980.0	40- 50	1715	7312	91.5,91.5
60	232.2	201.9	138.4	201.9	232.2	201.9	138.4	201.9	50- 60	389.5	7702	96.3,96.3
70	117.6	99.91	79.78	99.91	117.6	99.91	79.78	99.91	60- 70	136.6	7838	98,98
80	41.05	57.03	50.36	57.03	41.05	57.03	50.36	57.03	70- 80	75.40	7914	99,99
90	3.757	25.74	32.93	25.74	3.757	25.74	32.93	25.74	80- 90	37.37	7951	99.4,99.4
100	3.359	10.08	24.46	10.08	3.359	10.08	24.46	10.08	90-100	15.01	7966	99.6,99.6
110	5.946	1.879	9.182	1.879	5.946	1.879	9.182	1.879	100-110	6.268	7972	99.7,99.7
120	12.50	1.690	1.242	1.690	12.50	1.690	1.242	1.690	110-120	3.067	7975	99.8,99.8
130	13.34	2.533	1.907	2.533	13.34	2.533	1.907	2.533	120-130	3.106	7978	99.8,99.8
140	13.43	4.975	3.915	4.975	13.43	4.975	3.915	4.975	130-140	4.116	7983	99.8,99.8
150	15.30	6.479	5.156	6.479	15.30	6.479	5.156	6.479	140-150	4.744	7987	99.9,99.9
160	13.53	6.572	5.539	6.572	13.53	6.572	5.539	6.572	150-160	3.737	7991	99.9,99.9
170	26.85	9.854	7.928	9.854	26.85	9.854	7.928	9.854	160-170	2.894	7994	100,100
180	27.71	10.52	8.983	10.52	27.71	10.52	8.983	10.52	170-180	1.270	7995	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	326.50	0-10	326.50	4.08%
10-20	1020.53	0-20	1347.03	16.85%
20-30	1813.09	0-30	3160.12	39.53%
30-40	2437.10	0-40	5597.22	70.02%
40-50	1714.90	0-50	7312.12	91.47%
50-60	389.49	0-60	7701.61	96.34%
60-70	136.58	0-70	7838.19	98.05%
70-80	75.40	0-80	7913.59	99.00%
80-90	37.37	0-90	7950.96	99.46%
90-100	15.01	0-100	7965.97	99.65%
100-110	6.27	0-110	7972.24	99.73%
110-120	3.07	0-120	7975.31	99.77%
120-130	3.11	0-130	7978.42	99.81%
130-140	4.12	0-140	7982.54	99.86%
140-150	4.74	0-150	7987.28	99.92%
150-160	3.74	0-160	7991.02	99.96%
160-170	2.89	0-170	7993.91	100.00%
170-180	1.28	0-180	7995.19	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	3376	3370	3377	3375	3380	3380	3373	3380	3380	3375	3377	3370	3376	3370	3377	3375	3380	3380	3373
5	3403	3403	3402	3396	3396	3404	3394	3404	3396	3396	3402	3403	3403	3403	3402	3396	3396	3404	3394
10	3452	3465	3462	3454	3470	3476	3461	3476	3470	3454	3462	3465	3452	3465	3462	3454	3470	3476	3461
15	3569	3565	3565	3567	3590	3603	3584	3603	3590	3567	3565	3565	3569	3565	3565	3567	3590	3603	3584
20	3693	3709	3731	3731	3757	3766	3748	3766	3757	3731	3731	3709	3693	3709	3731	3731	3757	3766	3748
25	3855	3886	3910	3906	3931	3941	3914	3941	3931	3906	3910	3886	3855	3886	3910	3906	3931	3941	3914
30	3963	3999	4032	4051	4078	4082	4053	4082	4078	4051	4032	3999	3963	3999	4032	4051	4078	4082	4053
35	3804	3859	3905	3953	4043	4112	4109	4112	4043	3953	3905	3859	3804	3859	3905	3953	4043	4112	4109
40	3199	3253	3305	3373	3525	3658	3720	3658	3525	3373	3305	3253	3199	3253	3305	3373	3525	3658	3720
45	2251	2276	2287	2273	2289	2291	2314	2291	2289	2273	2287	2276	2251	2276	2287	2273	2289	2291	2314
50	1101	1092	1048	980	955	852	805	852	955	980	1048	1092	1101	1092	1048	980	955	852	805
55	430	432	404	375	351	302	271	302	351	375	404	432	430	432	404	375	351	302	271
60	232	238	218	202	182	156	138	156	182	202	218	238	232	238	218	202	182	156	138
65	162	161	149	138	121	104	95.4	104	121	138	149	161	162	161	149	138	121	104	95.4
70	118	115	110	99.9	89.4	77.1	79.8	77.1	89.4	99.9	110	115	118	115	110	99.9	89.4	77.1	79.8
75	90.5	73.0	74.0	71.0	65.7	57.3	59.0	57.3	65.7	71.0	74.0	73.0	90.5	73.0	74.0	71.0	65.7	57.3	59.0
80	41.0	41.5	53.5	57.0	61.1	55.3	50.4	55.3	61.1	57.0	53.5	41.5	41.0	41.5	53.5	57.0	61.1	55.3	50.4
85	19.8	25.1	33.8	33.7	34.5	32.1	54.5	32.1	34.5	33.7	33.8	25.1	19.8	25.1	33.8	33.7	34.5	32.1	54.5
90	3.76	12.0	27.8	25.7	21.3	20.8	32.9	20.8	21.3	25.7	27.8	12.0	3.76	12.0	27.8	25.7	21.3	20.8	32.9
95	3.36	4.52	11.4	13.2	14.4	16.3	26.3	16.3	14.4	13.2	11.4	4.52	3.36	4.52	11.4	13.2	14.4	16.3	26.3
100	3.36	2.54	4.62	10.1	14.8	19.2	24.5	19.2	14.8	10.1	4.62	2.54	3.36	2.54	4.62	10.1	14.8	19.2	24.5
105	3.63	2.45	2.35	3.01	5.34	9.36	13.6	9.36	5.34	3.01	2.35	2.45	3.63	2.45	2.35	3.01	5.34	9.36	13.6
110	5.95	2.45	2.25	1.88	2.66	5.93	9.18	5.93	2.66	1.88	2.25	2.45	5.95	2.45	2.25	1.88	2.66	5.93	9.18
115	9.51	2.91	2.16	1.69	1.52	2.49	4.13	2.49	1.52	1.69	2.16	2.91	9.51	2.91	2.16	1.69	1.52	2.49	4.13
120	12.5	4.32	2.16	1.69	1.42	1.34	1.24	1.34	1.42	1.69	2.16	4.32	12.5	4.32	2.16	1.69	1.42	1.34	1.24
125	13.8	5.92	2.53	1.69	1.42	1.34	1.24	1.34	1.42	1.69	2.53	5.92	13.8	5.92	2.53	1.69	1.42	1.34	1.24
130	13.3	7.52	3.38	2.53	2.26	2.10	1.91	2.10	2.26	2.53	3.38	7.52	13.3	7.52	3.38	2.53	2.26	2.10	1.91
135	13.3	9.03	4.50	3.66	3.41	3.24	2.86	3.24	3.41	3.66	4.50	9.03	13.3	9.03	4.50	3.66	3.41	3.24	2.86
140	13.4	10.5	5.82	4.98	4.74	4.58	3.92	4.58	4.74	4.98	5.82	10.5	13.4	10.5	5.82	4.98	4.74	4.58	3.92
145	14.5	12.0	7.13	6.10	5.88	5.82	4.87	5.82	5.88	6.10	7.13	12.0	14.5	12.0	7.13	6.10	5.88	5.82	4.87
150	15.3	12.5	7.32	6.48	6.26	6.11	5.16	6.11	6.26	6.48	7.32	12.5	15.3	12.5	7.32	6.48	6.26	6.11	5.16
155	14.4	12.2	7.32	6.48	6.35	6.21	5.26	6.21	6.35	6.48	7.32	12.2	14.4	12.2	7.32	6.48	6.35	6.21	5.26
160	13.5	11.8	7.32	6.57	6.35	6.30	5.54	6.30	6.35	6.57	7.32	11.8	13.5	11.8	7.32	6.57	6.35	6.30	5.54
165	20.5	16.9	9.75	8.26	7.86	7.73	6.78	7.73	7.86	8.26	9.75	16.9	20.5	16.9	9.75	8.26	7.86	7.73	6.78
170	26.8	20.0	11.5	9.85	9.10	8.97	7.93	8.97	9.10	9.85	11.5	20.0	26.8	20.0	11.5	9.85	9.10	8.97	7.93
175	27.8	20.7	12.2	10.4	9.95	9.54	8.78	9.54	9.95	10.4	12.2	20.7	27.8	20.7	12.2	10.4	9.95	9.54	8.78
180	27.7	21.0	12.3	10.5	9.96	10.1	8.98	10.1	9.96	10.5	12.3	21.0	27.7	21.0	12.3	10.5	9.96	10.1	8.98

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	3380	3380	3375	3377	3370														
5	3404	3396	3396	3402	3403														
10	3476	3470	3454	3462	3465														
15	3603	3590	3567	3565	3565														
20	3766	3757	3731	3731	3709														
25	3941	3931	3906	3910	3886														
30	4082	4078	4051	4032	3999														
35	4112	4043	3953	3905	3859														
40	3658	3525	3373	3305	3253														
45	2291	2289	2273	2287	2276														
50	852	955	980	1048	1092														
55	302	351	375	404	432														
60	156	182	202	218	238														
65	104	121	138	149	161														
70	77.1	89.4	99.9	110	115														
75	57.3	65.7	71.0	74.0	73.0														
80	55.3	61.1	57.0	53.5	41.5														
85	32.1	34.5	33.7	33.8	25.1														
90	20.8	21.3	25.7	27.8	12.0														
95	16.3	14.4	13.2	11.4	4.52														
100	19.2	14.8	10.1	4.62	2.54														
105	9.36	5.34	3.01	2.35	2.45														
110	5.93	2.66	1.88	2.25	2.45														
115	2.49	1.52	1.69	2.16	2.91														
120	1.34	1.42	1.69	2.16	4.32														
125	1.34	1.42	1.69	2.53	5.92														
130	2.10	2.26	2.53	3.38	7.52														
135	3.24	3.41	3.66	4.50	9.03														
140	4.58	4.74	4.98	5.82	10.5														
145	5.82	5.88	6.10	7.13	12.0														
150	6.11	6.26	6.48	7.32	12.5														
155	6.21	6.35	6.48	7.32	12.2														
160	6.30	6.35	6.57	7.32	11.8														
165	7.73	7.86	8.26	9.75	16.9														
170	8.97	9.10	9.85	11.5	20.0														
175	9.54	9.95	10.4	12.2	20.7														
180	10.1	9.96	10.5	12.3	21.0														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @60W3000K	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	0.485	57.8	0.993	9.63

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*****