

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		8190
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	140.7
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		58.2
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	5029±283	4989
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.1
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		80
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%		-4%
Zonal Lumen Requirement (0°-90°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥85%		140.7
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		0.488
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		58.2
(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 @60W5000K	-	251017004-S1
2	Goniophotometer Test	2025-10-21	TKBEAM4B @60W5000K	-	251017004-S1
3	THD and PF Test	2025-10-21	TKBEAM4B @60W5000K	-	251017004-S1

Remark (If any):

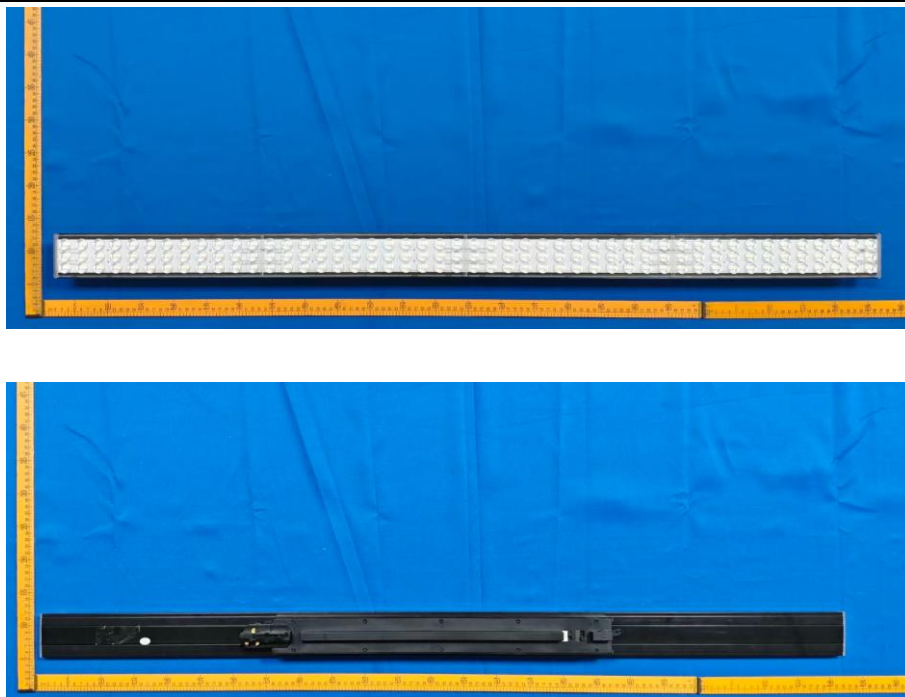
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3.0 Product Description

Luminaire Description: Model No. TKBEAM4B @60W5000K, 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 @60W5000K	Sample ID	251017004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

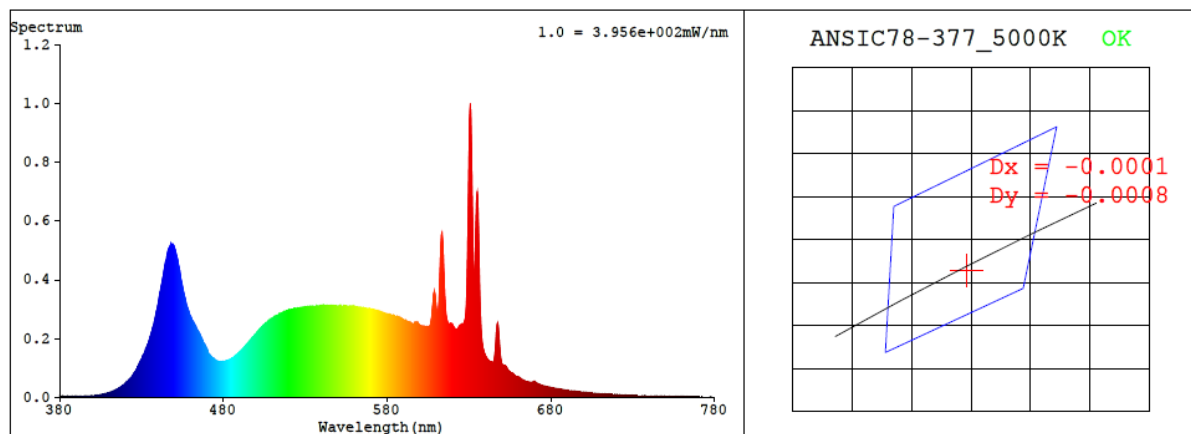
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.488	58.2	0.993

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4989	92.1	80	-0.0004	2.5	89	104	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3453$ $y = 0.3511$ / $u' = 0.2118$ $v' = 0.4845$ ($duv = -3.57e-04$)

CCT= 4989K Prcp WL: $L_d = 573.3nm$ Purity=9.0%

Peak WL: $L_p = 631nm$ FWHM: $= 3.6nm$ Ratio: R=17.9% G=77.6% B=4.4%

Render Index: $R_a = 92.1$ AvgR = 89.3 TM30: $R_f = 89$ $R_g = 103$

EEL: 0.09706 A++ Highest

R1 =95 R2 =92 R3 =87 R4 =92 R5 =94 R6 =89 R7 =94

R8 =94 R9 =80 R10 =79 R11 =92 R12 =70 R13 =94 R14 =92 R15 =95

4.1 Integrating Sphere Test

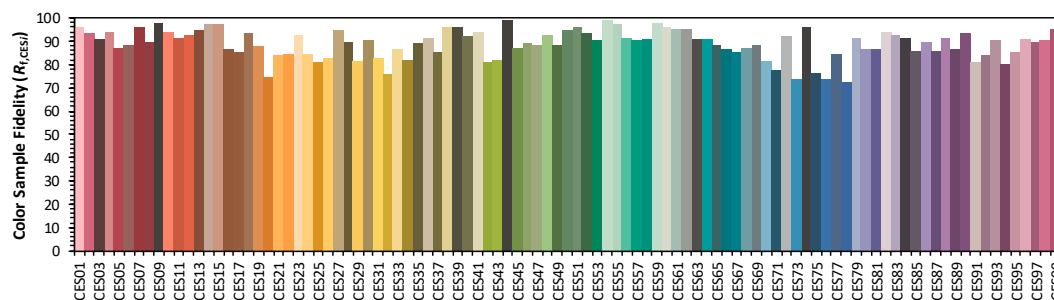
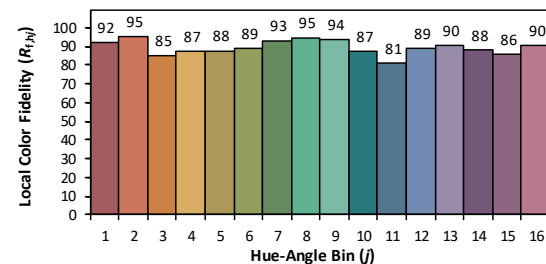
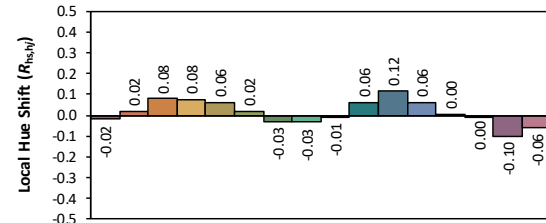
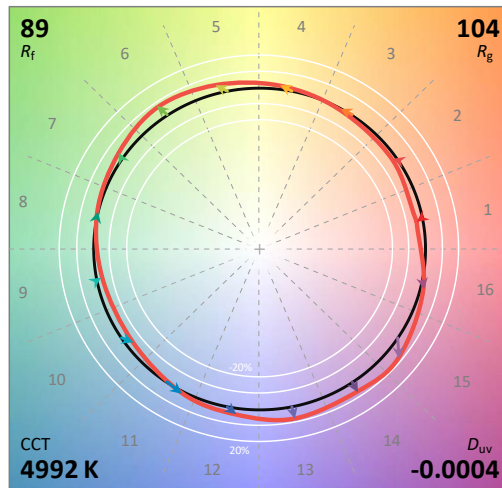
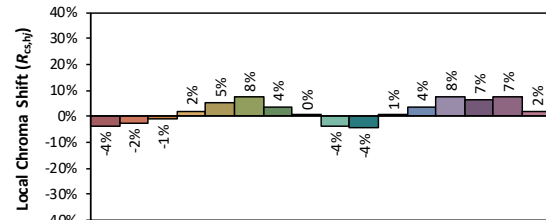
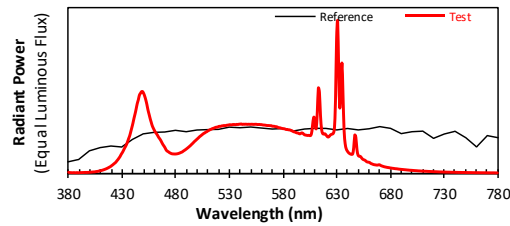
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/10/22

Model: TKBEAM4B @60W5000K



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

x 0.3453
 y 0.3509
 u' 0.2118
 v' 0.4844

CIE 13.3-1995
(CRI)

R_a 92
 R_g 81

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	5.50E-06	447	5.08E-04	514	2.83E-04	581	2.83E-04	648	2.27E-04	715	1.11E-05
381	3.40E-06	448	5.19E-04	515	2.86E-04	582	2.81E-04	649	1.51E-04	716	1.08E-05
382	3.30E-06	449	5.20E-04	516	2.88E-04	583	2.78E-04	650	1.16E-04	717	1.07E-05
383	2.70E-06	450	5.08E-04	517	2.91E-04	584	2.79E-04	651	1.08E-04	718	1.01E-05
384	2.60E-06	451	4.90E-04	518	2.93E-04	585	2.76E-04	652	1.07E-04	719	1.00E-05
385	3.30E-06	452	4.67E-04	519	2.94E-04	586	2.76E-04	653	1.00E-04	720	9.60E-06
386	2.40E-06	453	4.38E-04	520	2.97E-04	587	2.73E-04	654	9.14E-05	721	9.20E-06
387	2.60E-06	454	4.03E-04	521	2.98E-04	588	2.71E-04	655	8.63E-05	722	9.00E-06
388	3.30E-06	455	3.77E-04	522	2.99E-04	589	2.67E-04	656	8.38E-05	723	8.90E-06
389	1.90E-06	456	3.49E-04	523	3.01E-04	590	2.64E-04	657	7.93E-05	724	8.50E-06
390	3.00E-06	457	3.25E-04	524	3.02E-04	591	2.62E-04	658	7.32E-05	725	8.10E-06
391	3.40E-06	458	3.03E-04	525	3.03E-04	592	2.59E-04	659	7.06E-05	726	7.80E-06
392	3.40E-06	459	2.87E-04	526	3.03E-04	593	2.57E-04	660	6.96E-05	727	7.60E-06
393	3.80E-06	460	2.73E-04	527	3.04E-04	594	2.56E-04	661	6.69E-05	728	7.50E-06
394	3.90E-06	461	2.60E-04	528	3.06E-04	595	2.52E-04	662	6.15E-05	729	7.20E-06
395	4.40E-06	462	2.51E-04	529	3.06E-04	596	2.51E-04	663	5.89E-05	730	6.90E-06
396	4.50E-06	463	2.40E-04	530	3.08E-04	597	2.55E-04	664	5.60E-05	731	6.80E-06
397	4.40E-06	464	2.28E-04	531	3.08E-04	598	2.56E-04	665	5.39E-05	732	6.60E-06
398	4.80E-06	465	2.19E-04	532	3.08E-04	599	2.51E-04	666	5.28E-05	733	6.30E-06
399	5.10E-06	466	2.08E-04	533	3.10E-04	600	2.45E-04	667	5.17E-05	734	6.20E-06
400	5.70E-06	467	1.95E-04	534	3.10E-04	601	2.43E-04	668	5.11E-05	735	6.10E-06
401	6.10E-06	468	1.82E-04	535	3.10E-04	602	2.41E-04	669	5.25E-05	736	5.90E-06
402	6.90E-06	469	1.72E-04	536	3.09E-04	603	2.40E-04	670	5.34E-05	737	5.50E-06
403	7.60E-06	470	1.61E-04	537	3.11E-04	604	2.41E-04	671	4.95E-05	738	5.40E-06
404	7.80E-06	471	1.48E-04	538	3.10E-04	605	2.39E-04	672	4.63E-05	739	5.40E-06
405	9.00E-06	472	1.40E-04	539	3.12E-04	606	2.41E-04	673	4.40E-05	740	5.30E-06
406	1.03E-05	473	1.36E-04	540	3.12E-04	607	2.68E-04	674	4.16E-05	741	5.20E-06
407	1.09E-05	474	1.31E-04	541	3.14E-04	608	3.31E-04	675	3.98E-05	742	4.80E-06
408	1.28E-05	475	1.27E-04	542	3.11E-04	609	3.57E-04	676	3.84E-05	743	4.80E-06
409	1.41E-05	476	1.24E-04	543	3.12E-04	610	3.02E-04	677	3.69E-05	744	4.40E-06
410	1.57E-05	477	1.23E-04	544	3.11E-04	611	2.84E-04	678	3.58E-05	745	4.50E-06
411	1.78E-05	478	1.22E-04	545	3.12E-04	612	3.87E-04	679	3.47E-05	746	4.30E-06
412	1.99E-05	479	1.22E-04	546	3.12E-04	613	5.42E-04	680	3.32E-05	747	4.10E-06
413	2.22E-05	480	1.22E-04	547	3.11E-04	614	5.14E-04	681	3.22E-05	748	4.00E-06
414	2.48E-05	481	1.23E-04	548	3.12E-04	615	3.67E-04	682	3.10E-05	749	4.20E-06
415	2.75E-05	482	1.24E-04	549	3.11E-04	616	2.79E-04	683	3.03E-05	750	4.00E-06
416	3.07E-05	483	1.27E-04	550	3.11E-04	617	2.53E-04	684	2.91E-05	751	3.70E-06
417	3.42E-05	484	1.29E-04	551	3.12E-04	618	2.49E-04	685	2.82E-05	752	3.70E-06
418	3.81E-05	485	1.32E-04	552	3.11E-04	619	2.51E-04	686	2.77E-05	753	3.40E-06
419	4.17E-05	486	1.35E-04	553	3.11E-04	620	2.45E-04	687	2.68E-05	754	3.50E-06
420	4.71E-05	487	1.41E-04	554	3.11E-04	621	2.36E-04	688	2.56E-05	755	3.40E-06
421	5.20E-05	488	1.45E-04	555	3.11E-04	622	2.30E-04	689	2.49E-05	756	3.40E-06
422	5.79E-05	489	1.50E-04	556	3.10E-04	623	2.33E-04	690	2.41E-05	757	3.10E-06
423	6.34E-05	490	1.55E-04	557	3.10E-04	624	2.42E-04	691	2.34E-05	758	3.10E-06
424	6.94E-05	491	1.60E-04	558	3.10E-04	625	2.47E-04	692	2.29E-05	759	3.10E-06
425	7.83E-05	492	1.66E-04	559	3.09E-04	626	2.49E-04	693	2.20E-05	760	2.80E-06
426	8.64E-05	493	1.72E-04	560	3.09E-04	627	2.54E-04	694	2.15E-05	761	2.80E-06
427	9.62E-05	494	1.78E-04	561	3.07E-04	628	2.86E-04	695	2.08E-05	762	2.90E-06
428	1.06E-04	495	1.85E-04	562	3.07E-04	629	4.66E-04	696	2.00E-05	763	2.80E-06
429	1.19E-04	496	1.91E-04	563	3.06E-04	630	8.54E-04	697	1.95E-05	764	2.50E-06
430	1.30E-04	497	1.99E-04	564	3.05E-04	631	9.70E-04	698	1.87E-05	765	2.50E-06
431	1.42E-04	498	2.05E-04	565	3.04E-04	632	6.48E-04	699	1.83E-05	766	2.40E-06
432	1.57E-04	499	2.12E-04	566	3.03E-04	633	4.14E-04	700	1.78E-05	767	2.40E-06
433	1.69E-04	500	2.18E-04	567	3.03E-04	634	5.51E-04	701	1.73E-05	768	2.40E-06
434	1.83E-04	501	2.24E-04	568	3.02E-04	635	7.02E-04	702	1.67E-05	769	2.30E-06
435	2.00E-04	502	2.31E-04	569	3.02E-04	636	4.98E-04	703	1.62E-05	770	2.20E-06
436	2.20E-04	503	2.36E-04	570	2.99E-04	637	2.73E-04	704	1.57E-05	771	2.00E-06
437	2.39E-04	504	2.42E-04	571	2.99E-04	638	1.89E-04	705	1.53E-05	772	2.10E-06
438	2.65E-04	505	2.48E-04	572	2.98E-04	639	1.55E-04	706	1.45E-05	773	2.10E-06
439	2.91E-04	506	2.53E-04	573	2.96E-04	640	1.41E-04	707	1.42E-05	774	1.80E-06
440	3.18E-04	507	2.56E-04	574	2.96E-04	641	1.32E-04	708	1.38E-05	775	1.90E-06
441	3.50E-04	508	2.61E-04	575	2.93E-04	642	1.26E-04	709	1.32E-05	776	1.90E-06
442	3.78E-04	509	2.65E-04	576	2.89E-04	643	1.22E-04	710	1.26E-05	777	1.90E-06
443	4.09E-04	510	2.70E-04	577	2.89E-04	644	1.20E-04	711	1.27E-05	778	1.60E-06
444	4.43E-04	511	2.73E-04	578	2.87E-04	645	1.22E-04	712	1.22E-05	779	1.60E-06
445	4.67E-04	512	2.77E-04	579	2.85E-04	646	1.62E-04	713	1.19E-05	780	1.60E-06
446	4.96E-04	513	2.80E-04	580	2.83E-04	647	2.42E-04	714	1.16E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM4B @60W5000K	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	0.488	58.2	0.993
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

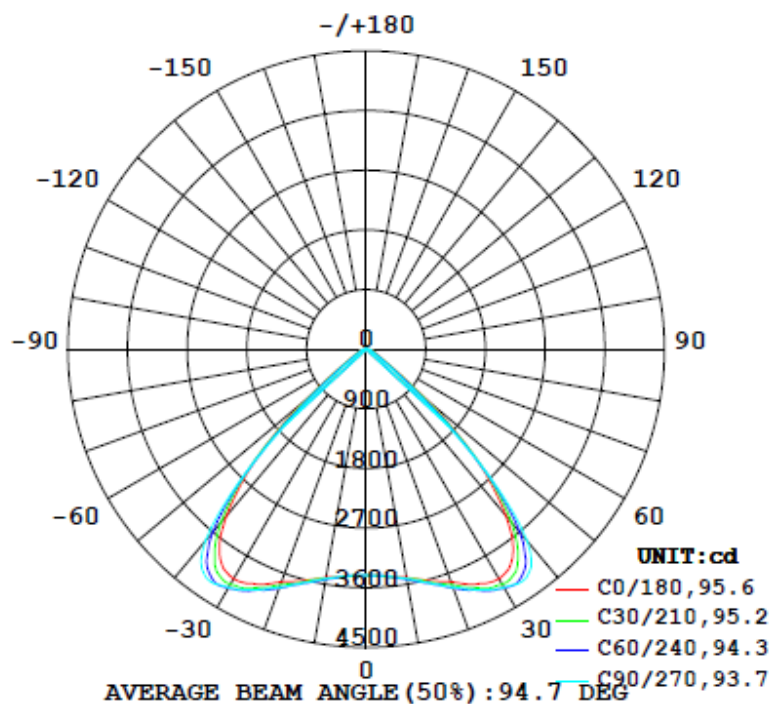
Test Result

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°)
8190	93.8	108.0	67.7	90.5	140.7	99.4%

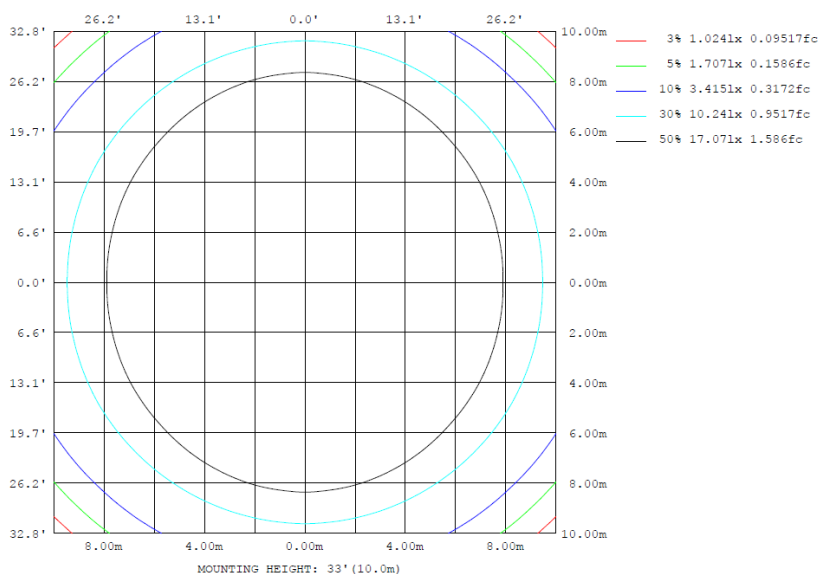
4.2 Goniophotometer Test

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, lamp
10	3493	3520	3518	3520	3493	3520	3518	3520	0- 10	330.8	330.8	4.04, 4.04
20	3736	3805	3825	3805	3736	3805	3825	3805	10- 20	1038	1368	16.7, 16.7
30	4000	4135	4152	4135	4000	4135	4152	4135	20- 30	1845	3213	39.2, 39.2
40	3287	3476	3771	3476	3287	3476	3771	3476	30- 40	2485	5698	69.6, 69.6
50	1185	1038	830.1	1038	1185	1038	830.1	1038	40- 50	1773	7471	91.2, 91.2
60	244.1	211.7	143.0	211.7	244.1	211.7	143.0	211.7	50- 60	413.1	7884	96.3, 96.3
70	121.7	103.6	82.45	103.6	121.7	103.6	82.45	103.6	60- 70	141.9	8026	98.98
80	42.29	60.74	52.15	60.74	42.29	60.74	52.15	60.74	70- 80	78.94	8105	99.99
90	3.806	27.86	34.90	27.86	3.806	27.86	34.90	27.86	80- 90	39.61	8144	99.4, 99.4
100	3.429	10.58	24.92	10.58	3.429	10.58	24.92	10.58	90-100	15.66	8160	99.6, 99.6
110	5.830	2.056	9.479	2.056	5.830	2.056	9.479	2.056	100-110	6.539	8166	99.7, 99.7
120	12.69	1.775	1.327	1.775	12.69	1.775	1.327	1.775	110-120	3.162	8170	99.8, 99.8
130	13.44	2.702	1.990	2.702	13.44	2.702	1.990	2.702	120-130	3.187	8173	99.8, 99.8
140	13.71	5.134	3.789	5.134	13.71	5.134	3.789	5.134	130-140	4.177	8177	99.8, 99.8
150	15.75	6.908	5.213	6.908	15.75	6.908	5.213	6.908	140-150	4.824	8182	99.9, 99.9
160	13.53	6.913	5.592	6.913	13.53	6.913	5.592	6.913	150-160	3.830	8186	99.9, 99.9
170	27.23	9.806	7.863	9.806	27.23	9.806	7.863	9.806	160-170	2.906	8188	100, 100
180	27.99	10.56	9.191	10.56	27.99	10.56	9.191	10.56	170-180	1.279	8190	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	330.76	0-10	330.76	4.04%
10-20	1037.59	0-20	1368.35	16.71%
20-30	1844.81	0-30	3213.16	39.24%
30-40	2484.71	0-40	5697.87	69.58%
40-50	1772.72	0-50	7470.59	91.23%
50-60	413.10	0-60	7883.69	96.28%
60-70	141.91	0-70	8025.60	98.01%
70-80	78.94	0-80	8104.54	98.98%
80-90	39.61	0-90	8144.15	99.46%
90-100	15.66	0-100	8159.81	99.65%
100-110	6.54	0-110	8166.35	99.73%
110-120	3.16	0-120	8169.51	99.77%
120-130	3.19	0-130	8172.70	99.81%
130-140	4.18	0-140	8176.88	99.86%
140-150	4.82	0-150	8181.70	99.92%
150-160	3.83	0-160	8185.53	99.96%
160-170	2.91	0-170	8188.44	100.00%
170-180	1.29	0-180	8189.73	100.02%

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

C (DBG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	3413	3409	3414	3415	3413	3412	3411	3412	3413	3415	3414	3409	3413	3409	3414	3415	3413	3412	3411
5	3441	3436	3447	3441	3438	3439	3436	3439	3438	3441	3447	3436	3441	3436	3447	3441	3438	3439	3436
10	3493	3496	3515	3520	3530	3525	3518	3525	3530	3520	3515	3496	3493	3496	3515	3520	3530	3525	3518
15	3614	3604	3639	3644	3657	3659	3652	3659	3657	3644	3639	3604	3614	3604	3639	3644	3657	3659	3652
20	3736	3754	3781	3805	3834	3842	3825	3842	3834	3805	3781	3754	3736	3754	3781	3805	3834	3842	3825
25	3915	3931	3975	3986	4012	4020	4006	4020	4012	3986	3975	3931	3915	3931	3975	3986	4012	4020	4006
30	4000	4039	4098	4135	4162	4183	4152	4183	4162	4135	4098	4039	4000	4039	4098	4135	4162	4183	4152
35	3849	3895	3982	4039	4128	4204	4211	4204	4128	4039	3982	3895	3849	3895	3982	4039	4128	4204	4211
40	3287	3319	3415	3476	3603	3719	3771	3719	3603	3476	3415	3319	3287	3319	3415	3476	3603	3719	3771
45	2359	2371	2394	2364	2349	2346	2361	2346	2349	2364	2394	2371	2359	2371	2394	2364	2349	2346	2361
50	1185	1169	1114	1038	999	884	830	884	999	1038	1114	1169	1185	1169	1114	1038	999	884	830
55	461	464	434	400	369	314	280	314	369	400	434	464	461	464	434	400	369	314	280
60	244	249	229	212	190	161	143	161	190	212	229	249	244	249	229	212	190	161	143
65	169	166	155	143	126	107	98.7	107	126	143	155	166	169	166	155	143	126	107	98.7
70	122	119	114	104	92.5	80.1	82.4	80.1	92.5	104	114	119	122	119	114	104	92.5	80.1	82.4
75	95.2	77.0	77.8	74.5	68.8	59.2	61.8	59.2	68.8	74.5	77.8	77.0	95.2	77.0	77.8	74.5	68.8	59.2	61.8
80	42.3	44.0	56.8	60.7	65.4	57.3	52.2	57.3	65.4	60.7	56.8	44.0	42.3	44.0	56.8	60.7	65.4	57.3	52.2
85	21.0	26.1	36.6	36.8	37.4	34.3	55.2	34.3	37.4	36.8	36.6	26.1	21.0	26.1	36.6	36.8	37.4	34.3	55.2
90	3.81	12.1	29.3	27.9	22.7	22.2	34.9	22.2	27.9	29.3	29.3	12.1	3.81	12.1	29.3	27.9	22.7	22.2	34.9
95	3.52	4.77	11.7	14.1	15.4	17.2	27.8	17.2	15.4	14.1	11.7	4.77	3.52	4.77	11.7	14.1	15.4	17.2	27.8
100	3.43	2.61	4.88	10.6	15.3	19.5	24.9	19.5	15.3	10.6	4.88	2.61	3.43	2.61	4.88	10.6	15.3	19.5	24.9
105	3.71	2.61	2.34	3.18	5.58	9.68	14.1	9.68	5.58	3.18	2.34	2.61	3.71	2.61	2.34	3.18	5.58	9.68	14.1
110	5.83	2.61	2.24	2.06	2.93	6.16	9.48	6.16	2.93	2.06	2.24	2.61	5.83	2.61	2.24	2.06	2.93	6.16	9.48
115	9.63	3.07	2.24	1.78	1.51	2.65	4.30	2.65	1.51	1.78	2.24	3.07	9.63	3.07	2.24	1.78	1.51	2.65	4.30
120	12.7	4.46	2.24	1.78	1.41	1.32	1.33	1.32	1.41	1.78	2.24	4.46	12.7	4.46	2.24	1.78	1.41	1.32	1.33
125	14.0	6.05	2.62	1.78	1.41	1.32	1.33	1.32	1.41	1.78	2.62	6.05	14.0	6.05	2.62	1.78	1.41	1.32	1.33
130	13.4	7.72	3.46	2.70	2.26	2.08	1.99	2.08	2.26	2.70	3.46	7.72	13.4	7.72	3.46	2.70	2.26	2.08	1.99
135	13.4	9.21	4.58	3.73	3.39	3.31	2.93	3.31	3.39	3.73	4.58	9.21	13.4	9.21	4.58	3.73	3.39	3.31	2.93
140	13.7	10.7	5.89	5.13	4.71	4.64	3.79	4.64	3.79	5.13	5.89	10.7	13.7	10.7	5.89	5.13	4.71	4.64	3.79
145	14.9	12.2	7.11	6.25	5.84	5.87	4.83	5.87	4.83	6.25	7.11	12.2	14.9	12.2	7.11	6.25	5.84	5.87	4.83
150	15.8	12.8	7.48	6.91	6.40	6.24	5.21	6.24	5.21	6.91	7.48	12.8	15.8	12.8	7.48	6.91	6.40	6.24	5.21
155	14.6	12.5	7.48	6.82	6.50	6.25	5.50	6.25	5.50	6.82	7.48	12.5	14.6	12.5	7.48	6.82	6.50	6.25	5.50
160	13.5	11.9	7.39	6.91	6.59	6.25	5.59	6.25	5.59	6.91	7.39	11.9	13.5	11.9	7.39	6.91	6.59	6.25	5.59
165	20.7	16.9	9.63	8.40	7.82	7.76	6.91	7.76	6.91	8.40	9.63	16.9	20.7	16.9	9.63	8.40	7.82	7.76	6.91
170	27.2	20.0	11.6	9.81	9.23	8.89	7.86	8.89	9.23	9.81	11.6	20.0	27.2	20.0	11.6	9.81	9.23	8.89	7.86
175	28.0	20.8	12.3	10.6	10.1	9.65	8.72	9.65	10.1	10.6	12.3	20.8	28.0	20.8	12.3	10.6	10.1	9.65	8.72
180	28.0	20.8	12.3	10.6	10.3	9.75	9.19	9.75	10.3	10.6	12.3	20.8	28.0	20.8	12.3	10.6	10.3	9.75	9.19

Table--2

UNIT: cd

C (DBG)	285	300	315	330	345															
γ (DBG)	0	3412	3413	3415	3414	3409														
5	3439	3438	3441	3447	3436															
10	3525	3530	3520	3515	3496															
15	3659	3657	3644	3639	3604															
20	3842	3834	3805	3781	3754															
25	4020	4012	3986	3975	3931															
30	4183	4162	4135	4098	4039															
35	4204	4128	4039	3982	3895															
40	3719	3603	3476	3415	3319															
45	2346	2349	2364	2394	2371															
50	884	999	1038	1114	1169															
55	314	369	400	434	464															
60	161	190	212	229	249															
65	107	126	143	155	166															
70	80.1	92.5	104	114	119															
75	59.2	68.8	74.5	77.8	77.0															
80	57.3	65.4	60.7	56.8	44.0															
85	34.3	37.4	36.8	36.6	26.1															
90	22.2	22.7	27.9	29.3	12.1															
95	17.2	15.4	14.1	11.7	4.77															
100	19.5	15.3	10.6	4.88	2.61															
105	9.68	5.58	3.18	2.34	2.61															
110	6.16	2.93	2.06	2.24	2.61															
115	2.65	1.51	1.78	2.24	3.07															
120	1.32	1.41	1.78	2.24	4.46															
125	1.32	1.41	1.78	2.62	6.05															
130	2.08	2.26	2.70	3.46	7.72															
135	3.31	3.39	3.73	4.58	9.21															
140	4.64	4.71	5.13	5.89	10.7															
145	5.87	5.84	6.25	7.11	12.2															
150	6.24	6.40	6.91	7.48	12.8															
155	6.25	6.50	6.82	7.48	12.5															
160	6.25	6.59	6.91	7.39	11.9															
165	7.76	7.82	8.40	9.63	16.9															
170	8.89	9.23	9.81	11.6	20.0															
175	9.65	10.1	10.6	12.3	20.8															
180	9.75	10.3	10.6	12.3	20.8															

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM4B @60W5000K	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	0.488	58.2	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*****