

Photometric Test Report

Relevant Standards

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

Prepared For

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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		3397
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	143.3
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		23.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.75
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.991
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3502
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		95.0
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		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		0.199
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		23.7
(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 @22W3500K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @22W3500K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @22W3500K	-	250903025-S1

Remark (If any):

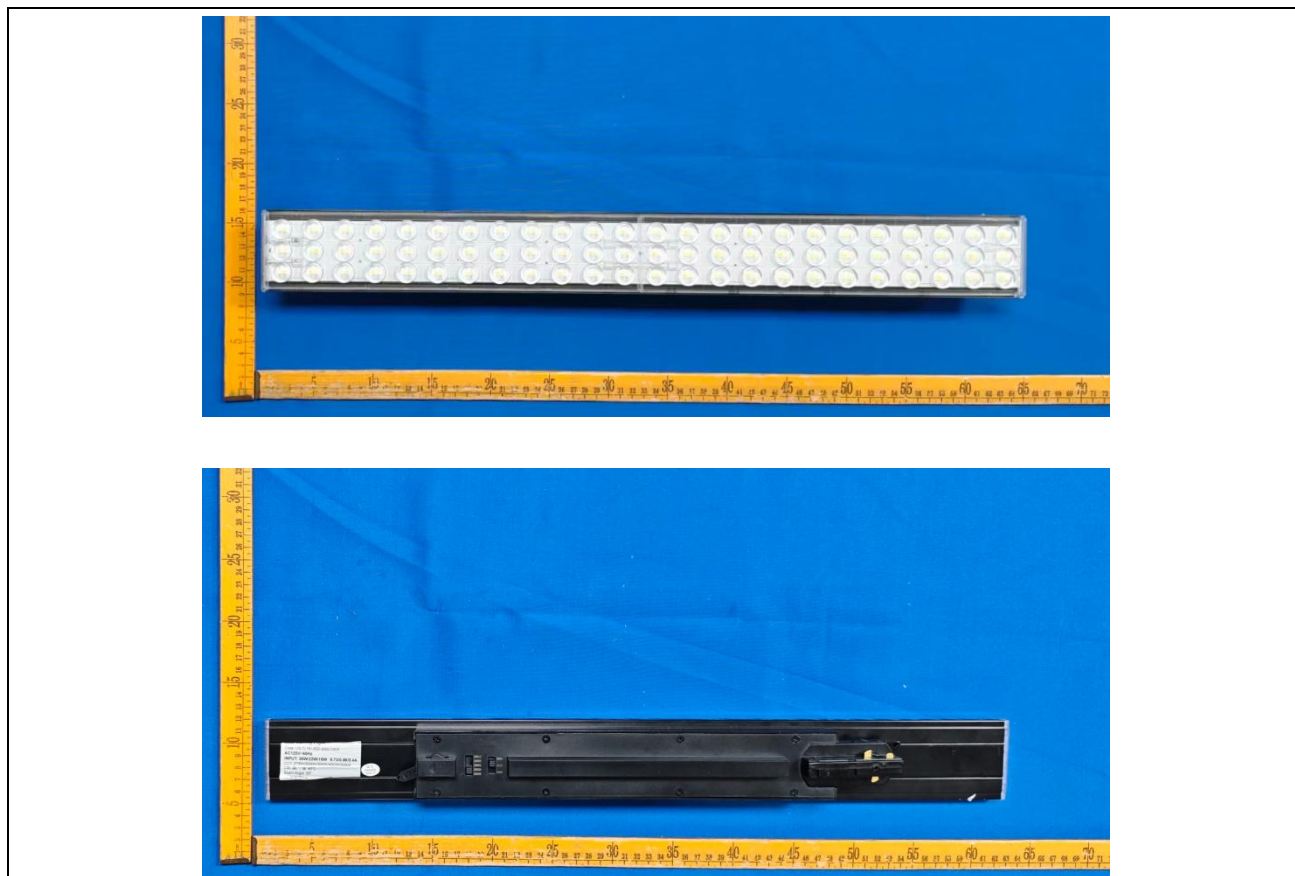
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. TKBEAM2B @22W3500K, 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 @22W3500K	Sample ID	250903025-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

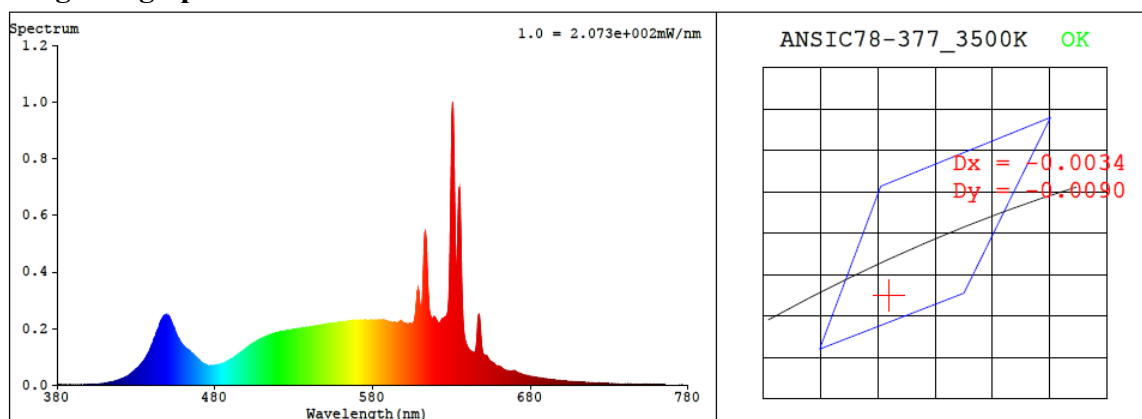
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.199	23.7	0.991

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3502	95.0	80	-0.0033	4.3	91	104	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4018$ $y = 0.3817$ / $u' = 0.2372$ $v' = 0.5069$ ($duv = -3.27e-03$)

CCT= 3502K Prcp WL: Ld=582.4nm Purity=35.1%

Peak WL: Lp=631nm FWHM: =3.6nm Ratio:R=22.8% G=73.9% B=3.2%

Render Index: Ra = 95.0 AvgR = 92.8 TM30:Rf=91 Rg=104

EEL: 0.10046 A++ Highest

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

R8 =93 R9 =80 R10=89 R11=93 R12=82 R13=98 R14=94 R15=97

4.1 Integrating Sphere Test

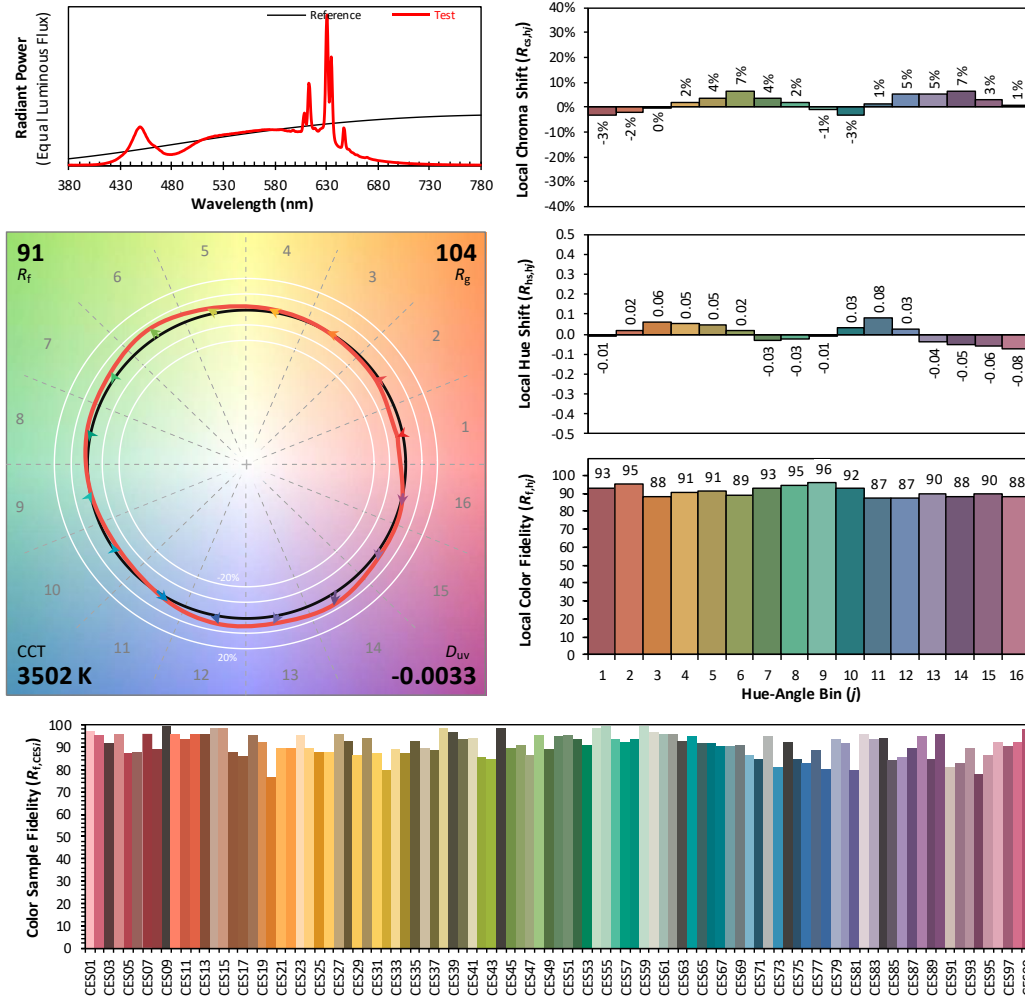
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @22W3500K



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

x 0.4018
 y 0.3815
 u' 0.2372
 v' 0.5068

CIE 13.3-1995
(CRI)

R_a 95
 R_g 80

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	1.40E-06	447	2.36E-04	514	1.74E-04	581	2.29E-04	648	2.24E-04	715	1.02E-05
381	1.30E-06	448	2.45E-04	515	1.78E-04	582	2.29E-04	649	1.48E-04	716	9.70E-06
382	1.70E-06	449	2.48E-04	516	1.80E-04	583	2.30E-04	650	1.11E-04	717	9.60E-06
383	1.50E-06	450	2.45E-04	517	1.81E-04	584	2.29E-04	651	1.04E-04	718	9.20E-06
384	1.10E-06	451	2.38E-04	518	1.83E-04	585	2.30E-04	652	1.04E-04	719	9.00E-06
385	1.10E-06	452	2.28E-04	519	1.85E-04	586	2.30E-04	653	9.71E-05	720	8.60E-06
386	1.30E-06	453	2.13E-04	520	1.85E-04	587	2.30E-04	654	8.82E-05	721	8.30E-06
387	1.00E-06	454	2.02E-04	521	1.88E-04	588	2.29E-04	655	8.33E-05	722	8.10E-06
388	1.00E-06	455	1.87E-04	522	1.90E-04	589	2.27E-04	656	8.07E-05	723	7.90E-06
389	1.10E-06	456	1.75E-04	523	1.90E-04	590	2.24E-04	657	7.61E-05	724	7.70E-06
390	1.20E-06	457	1.62E-04	524	1.90E-04	591	2.24E-04	658	7.03E-05	725	7.50E-06
391	1.40E-06	458	1.53E-04	525	1.91E-04	592	2.22E-04	659	6.76E-05	726	7.10E-06
392	1.90E-06	459	1.46E-04	526	1.94E-04	593	2.22E-04	660	6.73E-05	727	6.90E-06
393	1.90E-06	460	1.38E-04	527	1.94E-04	594	2.23E-04	661	6.38E-05	728	6.80E-06
394	2.10E-06	461	1.33E-04	528	1.93E-04	595	2.19E-04	662	5.89E-05	729	6.60E-06
395	2.10E-06	462	1.28E-04	529	1.96E-04	596	2.20E-04	663	5.57E-05	730	6.50E-06
396	2.10E-06	463	1.25E-04	530	1.97E-04	597	2.25E-04	664	5.35E-05	731	6.00E-06
397	2.40E-06	464	1.20E-04	531	1.98E-04	598	2.27E-04	665	5.16E-05	732	6.00E-06
398	2.10E-06	465	1.13E-04	532	1.99E-04	599	2.23E-04	666	5.06E-05	733	5.50E-06
399	2.00E-06	466	1.10E-04	533	1.99E-04	600	2.18E-04	667	4.93E-05	734	5.70E-06
400	2.50E-06	467	1.04E-04	534	2.00E-04	601	2.18E-04	668	4.87E-05	735	5.40E-06
401	2.90E-06	468	9.81E-05	535	2.00E-04	602	2.17E-04	669	5.07E-05	736	5.10E-06
402	3.00E-06	469	9.32E-05	536	2.02E-04	603	2.17E-04	670	5.13E-05	737	5.00E-06
403	3.30E-06	470	8.92E-05	537	2.03E-04	604	2.18E-04	671	4.76E-05	738	4.90E-06
404	4.00E-06	471	8.21E-05	538	2.04E-04	605	2.18E-04	672	4.40E-05	739	4.70E-06
405	4.00E-06	472	7.78E-05	539	2.04E-04	606	2.20E-04	673	4.18E-05	740	4.70E-06
406	4.40E-06	473	7.52E-05	540	2.05E-04	607	2.49E-04	674	3.97E-05	741	4.40E-06
407	4.90E-06	474	7.28E-05	541	2.06E-04	608	3.12E-04	675	3.79E-05	742	4.40E-06
408	5.70E-06	475	7.13E-05	542	2.07E-04	609	3.37E-04	676	3.63E-05	743	4.00E-06
409	5.80E-06	476	7.00E-05	543	2.08E-04	610	2.83E-04	677	3.53E-05	744	4.00E-06
410	6.90E-06	477	7.00E-05	544	2.08E-04	611	2.67E-04	678	3.41E-05	745	4.10E-06
411	7.80E-06	478	6.90E-05	545	2.10E-04	612	3.71E-04	679	3.26E-05	746	3.90E-06
412	8.50E-06	479	6.96E-05	546	2.11E-04	613	5.28E-04	680	3.11E-05	747	3.80E-06
413	9.70E-06	480	6.91E-05	547	2.12E-04	614	4.99E-04	681	3.01E-05	748	3.40E-06
414	1.05E-05	481	7.10E-05	548	2.12E-04	615	3.50E-04	682	2.93E-05	749	3.40E-06
415	1.21E-05	482	7.16E-05	549	2.14E-04	616	2.64E-04	683	2.85E-05	750	3.30E-06
416	1.34E-05	483	7.30E-05	550	2.14E-04	617	2.39E-04	684	2.75E-05	751	3.30E-06
417	1.52E-05	484	7.44E-05	551	2.14E-04	618	2.37E-04	685	2.69E-05	752	3.20E-06
418	1.67E-05	485	7.68E-05	552	2.16E-04	619	2.41E-04	686	2.58E-05	753	3.10E-06
419	1.84E-05	486	7.88E-05	553	2.18E-04	620	2.34E-04	687	2.50E-05	754	3.20E-06
420	2.05E-05	487	8.10E-05	554	2.17E-04	621	2.24E-04	688	2.39E-05	755	2.90E-06
421	2.33E-05	488	8.52E-05	555	2.19E-04	622	2.20E-04	689	2.31E-05	756	2.90E-06
422	2.45E-05	489	8.75E-05	556	2.20E-04	623	2.23E-04	690	2.25E-05	757	2.60E-06
423	2.77E-05	490	9.10E-05	557	2.20E-04	624	2.32E-04	691	2.17E-05	758	2.70E-06
424	3.05E-05	491	9.43E-05	558	2.21E-04	625	2.37E-04	692	2.14E-05	759	2.70E-06
425	3.32E-05	492	9.73E-05	559	2.23E-04	626	2.41E-04	693	2.06E-05	760	2.60E-06
426	3.77E-05	493	1.02E-04	560	2.23E-04	627	2.45E-04	694	1.98E-05	761	2.60E-06
427	4.15E-05	494	1.06E-04	561	2.24E-04	628	2.81E-04	695	1.92E-05	762	2.50E-06
428	4.65E-05	495	1.10E-04	562	2.24E-04	629	4.62E-04	696	1.85E-05	763	2.30E-06
429	5.12E-05	496	1.14E-04	563	2.25E-04	630	8.53E-04	697	1.80E-05	764	2.00E-06
430	5.67E-05	497	1.18E-04	564	2.25E-04	631	9.69E-04	698	1.76E-05	765	2.40E-06
431	6.16E-05	498	1.22E-04	565	2.26E-04	632	6.45E-04	699	1.70E-05	766	2.10E-06
432	6.66E-05	499	1.27E-04	566	2.27E-04	633	4.08E-04	700	1.65E-05	767	2.00E-06
433	7.35E-05	500	1.32E-04	567	2.28E-04	634	5.48E-04	701	1.59E-05	768	2.10E-06
434	7.96E-05	501	1.35E-04	568	2.29E-04	635	7.01E-04	702	1.54E-05	769	1.80E-06
435	8.60E-05	502	1.40E-04	569	2.29E-04	636	4.95E-04	703	1.48E-05	770	1.90E-06
436	9.50E-05	503	1.44E-04	570	2.30E-04	637	2.66E-04	704	1.44E-05	771	1.80E-06
437	1.05E-04	504	1.46E-04	571	2.30E-04	638	1.82E-04	705	1.37E-05	772	1.80E-06
438	1.15E-04	505	1.50E-04	572	2.30E-04	639	1.50E-04	706	1.35E-05	773	1.80E-06
439	1.27E-04	506	1.54E-04	573	2.31E-04	640	1.36E-04	707	1.30E-05	774	1.90E-06
440	1.41E-04	507	1.58E-04	574	2.31E-04	641	1.27E-04	708	1.27E-05	775	1.60E-06
441	1.55E-04	508	1.60E-04	575	2.31E-04	642	1.21E-04	709	1.22E-05	776	1.70E-06
442	1.69E-04	509	1.64E-04	576	2.30E-04	643	1.18E-04	710	1.20E-05	777	1.60E-06
443	1.85E-04	510	1.66E-04	577	2.30E-04	644	1.15E-04	711	1.14E-05	778	1.60E-06
444	1.98E-04	511	1.68E-04	578	2.30E-04	645	1.18E-04	712	1.08E-05	779	1.60E-06
445	2.15E-04	512	1.70E-04	579	2.30E-04	646	1.59E-04	713	1.09E-05	780	1.60E-06
446	2.28E-04	513	1.72E-04	580	2.29E-04	647	2.41E-04	714	1.05E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	TKBEAM2B @22W3500K	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	0.199	23.7	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

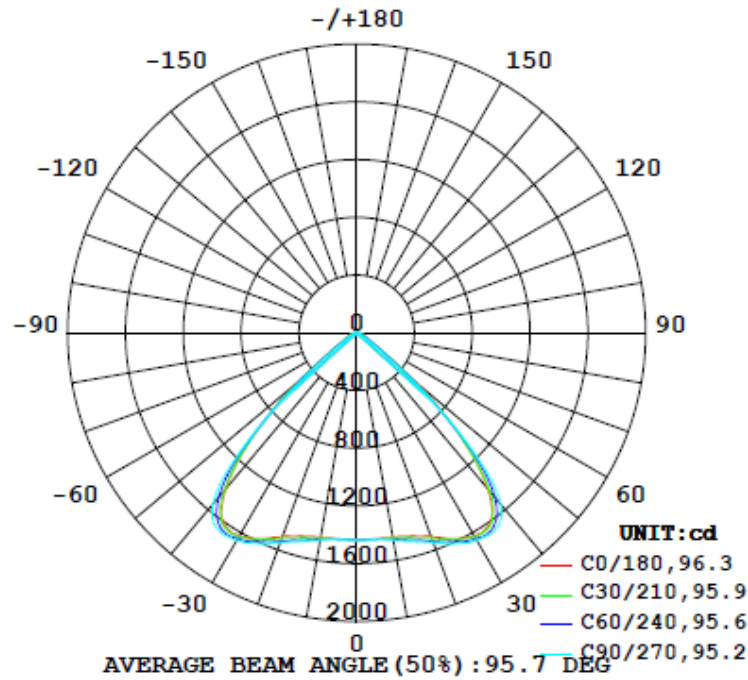
Test Result

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°)
3397	95.9	109.3	70.6	93.3	143.3	99.4%

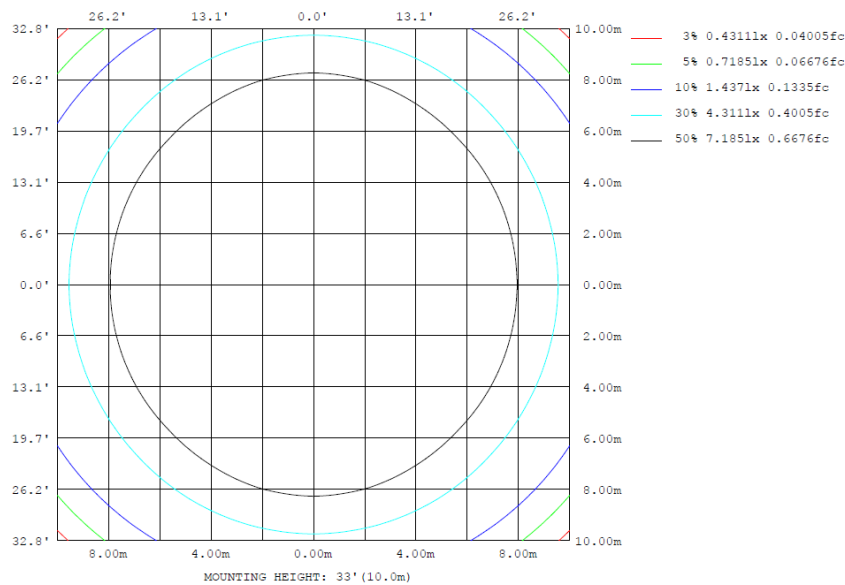
4.2 Goniophotometer Test

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	1439	1447	1458	1447	1439	1447	1458	1447	0~ 10	137.4	137.4	4.04,4.04
20	1502	1535	1547	1535	1502	1535	1547	1535	10~ 20	420.9	558.3	16.4,16.4
30	1626	1636	1660	1636	1626	1636	1660	1636	20~ 30	736.9	1295	38.1,38.1
40	1412	1443	1554	1443	1412	1443	1554	1443	30~ 40	1008	2303	67.8,67.8
50	531.3	496.1	423.2	496.1	531.3	496.1	423.2	496.1	40~ 50	776.5	3079	90.7,90.7
60	105.5	93.14	64.80	93.14	105.5	93.14	64.80	93.14	50~ 60	191.1	3271	96.3,96.3
70	51.13	42.90	32.14	42.90	51.13	42.90	32.14	42.90	60~ 70	59.83	3330	98.98
80	15.62	20.65	19.79	20.65	15.62	20.65	19.79	20.65	70~ 80	31.60	3362	99.99
90	2.611	9.878	11.04	9.878	2.611	9.878	11.04	9.878	80~ 90	14.60	3377	99.4,99.4
100	2.019	4.373	9.184	4.373	2.019	4.373	9.184	4.373	90~100	6.126	3383	99.6,99.6
110	1.634	1.236	4.072	1.236	1.634	1.236	4.072	1.236	100~110	2.981	3386	99.7,99.7
120	2.975	1.045	0.9474	1.045	2.975	1.045	0.9474	1.045	110~120	1.481	3387	99.7,99.7
130	6.144	1.321	1.136	1.321	6.144	1.321	1.136	1.321	120~130	1.329	3388	99.8,99.8
140	7.977	2.563	2.554	2.563	7.977	2.563	2.554	2.563	130~140	1.935	3390	99.8,99.8
150	8.941	3.419	3.125	3.419	8.941	3.419	3.125	3.419	140~150	2.453	3393	99.9,99.9
160	9.035	3.419	3.125	3.419	9.035	3.419	3.125	3.419	150~160	1.938	3395	99.9,99.9
170	12.98	5.598	4.545	5.598	12.98	5.598	4.545	5.598	160~170	1.460	3396	100,100
180	13.46	5.792	5.114	5.792	13.46	5.792	5.114	5.792	170~180	0.6602	3397	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	137.37	0-10	137.37	4.04%
10-20	420.95	0-20	558.32	16.44%
20-30	736.89	0-30	1295.21	38.14%
30-40	1007.73	0-40	2302.94	67.81%
40-50	776.51	0-50	3079.45	90.67%
50-60	191.10	0-60	3270.55	96.30%
60-70	59.83	0-70	3330.38	98.06%
70-80	31.60	0-80	3361.98	98.99%
80-90	14.60	0-90	3376.58	99.42%
90-100	6.13	0-100	3382.71	99.60%
100-110	2.98	0-110	3385.69	99.69%
110-120	1.48	0-120	3387.17	99.73%
120-130	1.33	0-130	3388.50	99.77%
130-140	1.93	0-140	3390.43	99.83%
140-150	2.45	0-150	3392.88	99.90%
150-160	1.94	0-160	3394.82	99.96%
160-170	1.46	0-170	3396.28	100.00%
170-180	0.66	0-180	3396.94	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	1434	1433	1439	1436	1437	1436	1439	1436	1437	1436	1439	1433	1434	1433	1439	1436	1437	1436	1439
5	1432	1431	1440	1432	1438	1436	1436	1436	1438	1432	1440	1431	1432	1431	1440	1432	1438	1436	1436
10	1439	1435	1447	1447	1457	1453	1458	1453	1457	1447	1447	1435	1439	1435	1447	1447	1457	1453	1458
15	1458	1457	1469	1482	1489	1489	1495	1489	1489	1482	1469	1457	1458	1457	1469	1482	1489	1489	1495
20	1502	1507	1516	1535	1541	1543	1547	1543	1541	1535	1516	1507	1502	1507	1516	1535	1541	1543	1547
25	1575	1575	1582	1588	1598	1606	1614	1606	1598	1588	1582	1575	1575	1582	1588	1598	1606	1614	1614
30	1626	1628	1633	1636	1647	1652	1660	1652	1647	1636	1633	1628	1626	1633	1636	1647	1652	1660	1660
35	1609	1612	1620	1629	1647	1666	1668	1666	1647	1629	1620	1612	1609	1612	1620	1629	1647	1666	1668
40	1412	1414	1427	1443	1486	1535	1554	1535	1486	1443	1427	1414	1412	1414	1427	1443	1486	1535	1554
45	1019	1019	1022	1034	1056	1072	1077	1072	1056	1034	1022	1019	1019	1019	1022	1034	1056	1072	1077
50	531	524	512	496	482	441	423	441	482	496	512	524	531	524	512	496	482	441	423
55	200	202	194	185	174	154	141	154	174	185	194	202	200	202	194	185	174	154	141
60	106	107	99.9	93.1	83.0	71.2	64.8	71.2	83.0	93.1	99.9	107	106	107	99.9	93.1	83.0	71.2	64.8
65	71.6	69.9	65.9	60.0	51.5	43.9	41.0	43.9	51.5	60.0	65.9	69.9	71.6	69.9	65.9	60.0	51.5	43.9	41.0
70	51.1	50.6	48.3	42.9	36.8	32.1	32.1	32.1	36.8	42.9	48.3	50.6	51.1	50.6	48.3	42.9	36.8	32.1	32.1
75	37.7	32.7	32.0	30.6	27.1	23.2	23.9	23.2	27.1	30.6	32.0	32.7	37.7	32.7	32.0	30.6	27.1	23.2	23.9
80	15.6	18.2	20.3	20.6	23.1	20.8	19.8	20.8	23.1	20.6	20.3	18.2	15.6	18.2	20.3	20.6	23.1	20.8	19.8
85	8.87	10.5	13.6	13.4	13.8	12.6	17.1	12.6	13.8	13.4	13.6	10.5	8.87	10.5	13.6	13.4	13.8	12.6	17.1
90	2.61	5.18	11.4	9.88	8.37	8.27	11.0	8.27	8.37	9.88	11.4	5.18	2.61	5.18	11.4	9.88	8.37	8.27	11.0
95	2.12	2.69	4.85	5.33	5.71	6.36	9.85	6.36	5.71	5.33	4.85	2.69	2.12	2.69	4.85	5.33	5.71	6.36	9.85
100	2.02	1.72	2.58	4.37	5.89	7.69	9.18	7.69	5.89	4.37	2.58	1.72	2.02	1.72	2.58	4.37	5.89	7.69	9.18
105	1.73	1.63	1.33	1.81	2.58	4.38	5.59	4.38	2.58	1.81	1.33	1.63	1.73	1.63	1.33	1.81	2.58	4.38	5.59
110	1.63	1.53	1.24	1.24	1.62	3.14	4.07	3.14	1.62	1.24	1.24	1.53	1.63	1.53	1.24	1.24	1.62	3.14	4.07
115	1.63	1.53	1.24	1.04	1.05	1.72	2.28	1.72	1.05	1.04	1.24	1.53	1.63	1.53	1.24	1.04	1.05	1.72	2.28
120	2.98	1.53	1.24	1.04	1.05	0.95	0.95	0.95	1.05	1.04	1.24	1.53	2.98	1.53	1.24	1.04	1.05	0.95	0.95
125	4.80	1.63	1.24	1.04	1.05	0.95	0.95	0.95	1.05	1.04	1.24	1.63	4.80	1.63	1.24	1.04	1.05	0.95	0.95
130	6.14	2.10	1.52	1.32	1.23	1.14	1.14	1.14	1.23	1.32	1.52	2.10	6.14	2.10	1.52	1.32	1.23	1.14	1.14
135	7.21	2.87	2.27	1.80	1.90	1.71	1.70	1.71	1.90	1.80	2.27	2.87	7.21	2.87	2.27	1.80	1.90	1.71	1.70
140	7.98	3.82	2.94	2.56	2.75	2.56	2.55	2.56	2.75	2.56	2.94	3.82	7.98	3.82	2.94	2.56	2.75	2.56	2.55
145	9.03	4.88	3.80	3.23	3.23	3.14	3.03	3.14	3.23	3.23	3.80	4.88	9.03	4.88	3.80	3.23	3.23	3.14	3.03
150	8.94	5.16	3.99	3.42	3.33	3.23	3.13	3.23	3.33	3.42	3.99	5.16	8.94	5.16	3.99	3.42	3.33	3.23	3.13
155	8.94	5.27	3.99	3.42	3.33	3.23	3.13	3.23	3.33	3.42	3.99	5.27	8.94	5.27	3.99	3.42	3.33	3.23	3.13
160	9.03	4.78	3.90	3.42	3.33	3.23	3.13	3.23	3.33	3.42	3.90	4.78	9.03	4.78	3.90	3.42	3.33	3.23	3.13
165	11.5	7.07	5.22	4.37	4.09	3.99	3.98	3.99	4.09	4.37	5.22	7.07	11.5	7.07	5.22	4.37	4.09	3.99	3.98
170	13.0	8.79	6.37	5.60	5.04	4.75	4.54	4.75	5.04	5.60	6.37	8.79	13.0	8.79	6.37	5.60	5.04	4.75	4.54
175	13.5	9.38	7.13	5.70	5.70	5.22	5.02	5.22	5.70	5.70	7.13	9.38	13.5	9.38	7.13	5.70	5.70	5.22	5.02
180	13.5	9.38	7.60	5.79	5.61	5.23	5.11	5.23	5.61	5.79	7.60	9.38	13.5	9.38	7.60	5.79	5.61	5.23	5.11

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1436	1437	1436	1439	1433														
5	1436	1438	1432	1440	1431														
10	1453	1457	1447	1447	1435														
15	1489	1489	1482	1469	1457														
20	1543	1541	1535	1516	1507														
25	1606	1598	1588	1582	1575														
30	1652	1647	1636	1633	1628														
35	1666	1647	1629	1620	1612														
40	1535	1486	1443	1427	1414														
45	1072	1056	1034	1022	1019														
50	441	482	496	512	524														
55	154	174	185	194	202														
60	71.2	83.0	93.1	99.9	107														
65	43.9	51.5	60.0	65.9	69.9														
70	32.1	36.8	42.9	48.3	50.6														
75	23.2	27.1	30.6	32.0	32.7														
80	20.8	23.1	20.6	20.3	18.2														
85	12.6	13.8	13.4	13.6	10.5														
90	8.27	8.37	9.88	11.4	5.18														
95	6.36	5.71	5.33	4.85	2.69														
100	7.69	5.89	4.37	2.58	1.72														
105	4.38	2.58	1.81	1.33	1.63														
110	3.14	1.62	1.24	1.24	1.53														
115	1.72	1.05	1.04	1.24	1.53														
120	0.95	1.05	1.04	1.24	1.53														
125	0.95	1.05	1.04	1.24	1.63														
130	1.14	1.23	1.32	1.52	2.10														
135	1.71	1.90	1.80	2.27	2.87														
140	2.56	2.75	2.56	2.94	3.82														
145	3.14	3.23	3.23	3.80	4.88														
150	3.23	3.33	3.42	3.99	5.16														
155	3.23	3.33	3.42	3.99	5.27														
160	3.23	3.33	3.42	3.90	4.78														
165	3.99	4.09	4.37	5.22	7.07														
170	4.75	5.04	5.60	6.37	8.79														
175	5.22	5.70	5.70	7.13	9.38														
180	5.23	5.61	5.79	7.60	9.38														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	TKBEAM2B @22W3500K	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	0.199	23.7	0.991	9.75

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*****