

## 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: 2025-09-25

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		2394
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	150.6
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.9
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	10.32
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.985
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3045±175	2977
			4 steps	3045±100	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		94.7
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		69
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		102
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%		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		0.135
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.9
(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 @15W3000K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @15W3000K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @15W3000K	-	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 @15W3000K, 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

<b>Model No.</b>	TKBEAM2B @15W3000K	<b>Sample ID</b>	250903025-S1
<b>Operate time (Min.)</b>	10	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

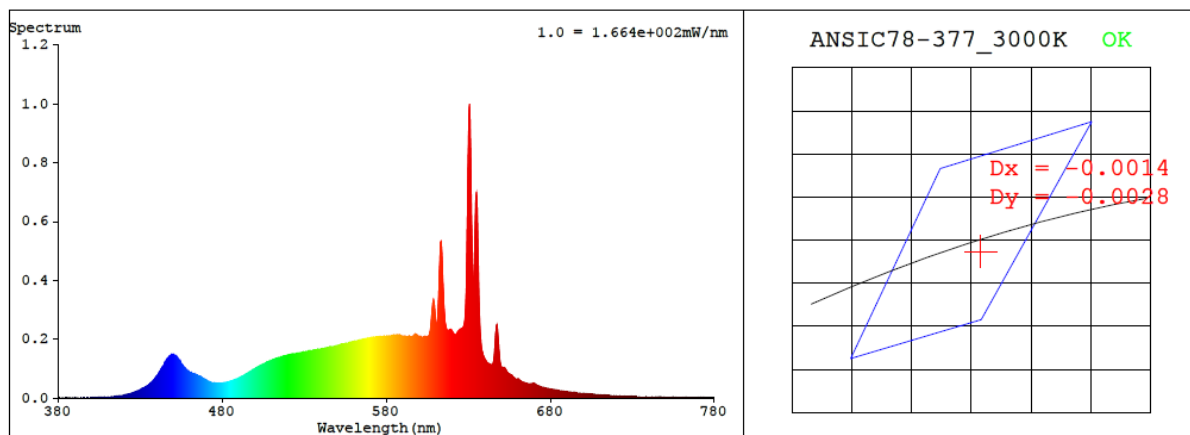
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were 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 4<math>\pi</math> 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

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>
120.0	60	0.135	15.9	0.985

<b>CCT (K)</b>	<b>CRI</b>	<b>R9</b>	<b>Duv</b>	<b>SDCM</b>	<b>Rf</b>	<b>Rg</b>	<b>IES Rcs,h1</b>
2977	94.7	69	-0.0009	2.6	91	102	-4%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4372$   $y = 0.4019$  /  $u' = 0.2517$   $v' = 0.5206$  ( $duv = -9.18e-04$ )

CCT= 2977K Prcp WL:  $L_d = 583.3nm$  Purity=51.9%

Peak WL:  $L_p = 631nm$  FWHM:  $\approx 3.6nm$  Ratio: R=25.4% G=72.0% B=2.6%

Render Index:  $R_a = 94.7$  AvgR = 92.1 TM30: Rf=91 Rg=102

EEL: 0.09560 A++ Highest

R1 =97 R2 =97 R3 =94 R4 =96 R5 =96 R6 =96 R7 =94

R8 =88 R9 =69 R10=90 R11=96 R12=84 R13=97 R14=95 R15=93

## 4.1 Integrating Sphere Test

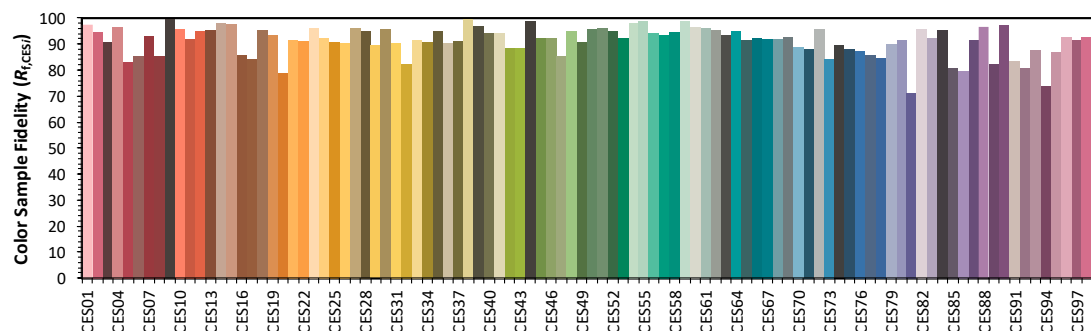
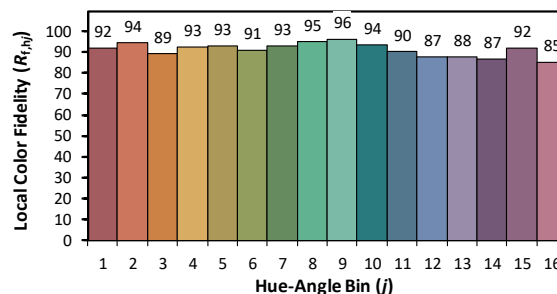
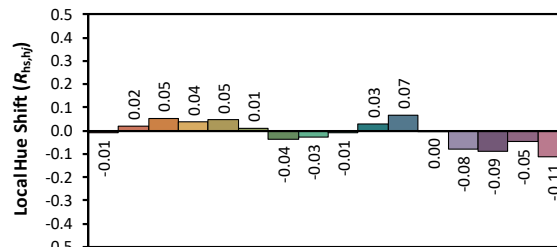
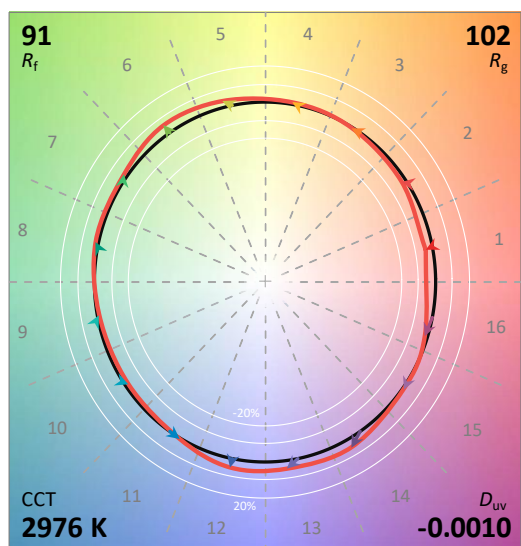
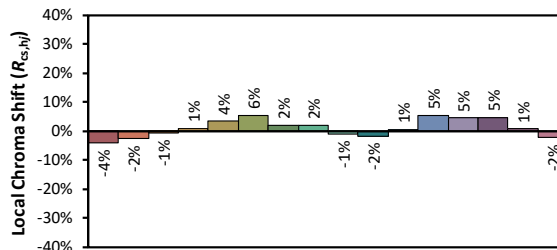
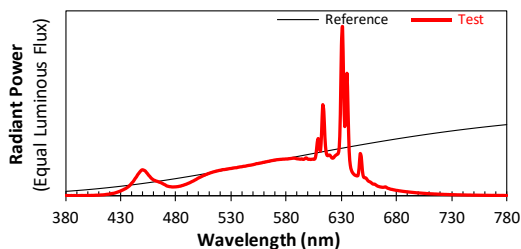
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @15W3000K



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

$x$  0.4372

$y$  0.4018

$u'$  0.2518

$v'$  0.5205

CIE 13.3-1995  
(CRI)

$R_a$  95

$R_g$  70



## 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	1.60E-06	447	1.35E-04	514	1.37E-04	581	2.10E-04	648	2.21E-04	715	9.60E-06
381	1.10E-06	448	1.43E-04	515	1.38E-04	582	2.11E-04	649	1.44E-04	716	9.50E-06
382	7.00E-07	449	1.48E-04	516	1.40E-04	583	2.12E-04	650	1.08E-04	717	9.00E-06
383	8.00E-07	450	1.48E-04	517	1.42E-04	584	2.13E-04	651	1.03E-04	718	8.70E-06
384	6.00E-07	451	1.45E-04	518	1.43E-04	585	2.14E-04	652	1.02E-04	719	8.50E-06
385	1.20E-06	452	1.41E-04	519	1.45E-04	586	2.15E-04	653	9.50E-05	720	8.20E-06
386	5.00E-07	453	1.33E-04	520	1.46E-04	587	2.15E-04	654	8.62E-05	721	7.90E-06
387	9.00E-07	454	1.26E-04	521	1.47E-04	588	2.14E-04	655	8.16E-05	722	7.80E-06
388	1.00E-06	455	1.17E-04	522	1.49E-04	589	2.12E-04	656	7.89E-05	723	7.40E-06
389	3.00E-07	456	1.11E-04	523	1.49E-04	590	2.11E-04	657	7.46E-05	724	7.10E-06
390	4.00E-07	457	1.03E-04	524	1.50E-04	591	2.11E-04	658	6.91E-05	725	7.20E-06
391	0.00E+00	458	9.71E-05	525	1.51E-04	592	2.10E-04	659	6.61E-05	726	6.70E-06
392	9.00E-07	459	9.26E-05	526	1.52E-04	593	2.09E-04	660	6.63E-05	727	6.80E-06
393	9.00E-07	460	8.85E-05	527	1.53E-04	594	2.11E-04	661	6.26E-05	728	6.20E-06
394	1.20E-06	461	8.66E-05	528	1.54E-04	595	2.08E-04	662	5.80E-05	729	6.10E-06
395	1.20E-06	462	8.31E-05	529	1.55E-04	596	2.09E-04	663	5.44E-05	730	6.10E-06
396	1.00E-06	463	8.21E-05	530	1.56E-04	597	2.13E-04	664	5.24E-05	731	5.70E-06
397	9.00E-07	464	7.92E-05	531	1.58E-04	598	2.16E-04	665	5.06E-05	732	5.70E-06
398	1.40E-06	465	7.69E-05	532	1.59E-04	599	2.12E-04	666	4.94E-05	733	5.40E-06
399	1.00E-06	466	7.51E-05	533	1.59E-04	600	2.08E-04	667	4.83E-05	734	5.40E-06
400	1.40E-06	467	7.18E-05	534	1.60E-04	601	2.09E-04	668	4.82E-05	735	4.90E-06
401	1.60E-06	468	6.84E-05	535	1.60E-04	602	2.07E-04	669	4.91E-05	736	4.90E-06
402	1.20E-06	469	6.49E-05	536	1.63E-04	603	2.08E-04	670	5.04E-05	737	4.90E-06
403	1.90E-06	470	6.22E-05	537	1.64E-04	604	2.09E-04	671	4.67E-05	738	4.70E-06
404	1.70E-06	471	5.77E-05	538	1.65E-04	605	2.08E-04	672	4.27E-05	739	4.40E-06
405	1.90E-06	472	5.50E-05	539	1.65E-04	606	2.12E-04	673	4.10E-05	740	4.40E-06
406	2.20E-06	473	5.35E-05	540	1.66E-04	607	2.40E-04	674	3.86E-05	741	4.20E-06
407	2.70E-06	474	5.19E-05	541	1.68E-04	608	3.03E-04	675	3.68E-05	742	4.10E-06
408	3.00E-06	475	5.16E-05	542	1.69E-04	609	3.26E-04	676	3.59E-05	743	4.00E-06
409	2.90E-06	476	5.03E-05	543	1.69E-04	610	2.71E-04	677	3.42E-05	744	3.70E-06
410	3.40E-06	477	5.00E-05	544	1.71E-04	611	2.57E-04	678	3.30E-05	745	3.60E-06
411	3.80E-06	478	5.03E-05	545	1.72E-04	612	3.63E-04	679	3.16E-05	746	3.70E-06
412	4.40E-06	479	5.06E-05	546	1.74E-04	613	5.18E-04	680	3.03E-05	747	3.70E-06
413	4.60E-06	480	5.10E-05	547	1.74E-04	614	4.81E-04	681	2.98E-05	748	3.20E-06
414	5.10E-06	481	5.18E-05	548	1.75E-04	615	3.35E-04	682	2.84E-05	749	3.20E-06
415	5.60E-06	482	5.25E-05	549	1.77E-04	616	2.54E-04	683	2.76E-05	750	3.00E-06
416	6.70E-06	483	5.42E-05	550	1.78E-04	617	2.31E-04	684	2.67E-05	751	3.00E-06
417	7.70E-06	484	5.49E-05	551	1.80E-04	618	2.30E-04	685	2.58E-05	752	3.10E-06
418	8.40E-06	485	5.74E-05	552	1.81E-04	619	2.33E-04	686	2.49E-05	753	3.00E-06
419	8.90E-06	486	5.88E-05	553	1.84E-04	620	2.28E-04	687	2.41E-05	754	2.80E-06
420	1.05E-05	487	6.11E-05	554	1.84E-04	621	2.19E-04	688	2.34E-05	755	2.90E-06
421	1.15E-05	488	6.35E-05	555	1.85E-04	622	2.15E-04	689	2.26E-05	756	2.50E-06
422	1.29E-05	489	6.53E-05	556	1.87E-04	623	2.18E-04	690	2.23E-05	757	2.60E-06
423	1.35E-05	490	6.81E-05	557	1.88E-04	624	2.27E-04	691	2.13E-05	758	2.50E-06
424	1.50E-05	491	7.08E-05	558	1.89E-04	625	2.32E-04	692	2.06E-05	759	2.40E-06
425	1.68E-05	492	7.33E-05	559	1.91E-04	626	2.37E-04	693	1.99E-05	760	2.30E-06
426	1.90E-05	493	7.64E-05	560	1.91E-04	627	2.41E-04	694	1.93E-05	761	2.30E-06
427	2.10E-05	494	7.99E-05	561	1.94E-04	628	2.76E-04	695	1.87E-05	762	2.30E-06
428	2.35E-05	495	8.27E-05	562	1.94E-04	629	4.63E-04	696	1.80E-05	763	2.20E-06
429	2.55E-05	496	8.57E-05	563	1.96E-04	630	8.60E-04	697	1.74E-05	764	2.00E-06
430	2.85E-05	497	8.96E-05	564	1.97E-04	631	9.64E-04	698	1.67E-05	765	2.00E-06
431	3.13E-05	498	9.26E-05	565	1.99E-04	632	6.25E-04	699	1.62E-05	766	1.80E-06
432	3.42E-05	499	9.68E-05	566	2.00E-04	633	3.95E-04	700	1.56E-05	767	1.80E-06
433	3.76E-05	500	1.01E-04	567	2.01E-04	634	5.47E-04	701	1.55E-05	768	2.00E-06
434	4.03E-05	501	1.04E-04	568	2.02E-04	635	7.00E-04	702	1.49E-05	769	1.90E-06
435	4.46E-05	502	1.07E-04	569	2.04E-04	636	4.84E-04	703	1.45E-05	770	1.80E-06
436	4.88E-05	503	1.10E-04	570	2.04E-04	637	2.56E-04	704	1.39E-05	771	1.60E-06
437	5.37E-05	504	1.13E-04	571	2.06E-04	638	1.76E-04	705	1.35E-05	772	1.60E-06
438	5.91E-05	505	1.16E-04	572	2.06E-04	639	1.47E-04	706	1.31E-05	773	1.60E-06
439	6.68E-05	506	1.18E-04	573	2.07E-04	640	1.33E-04	707	1.24E-05	774	1.40E-06
440	7.42E-05	507	1.22E-04	574	2.08E-04	641	1.25E-04	708	1.21E-05	775	1.60E-06
441	8.09E-05	508	1.23E-04	575	2.08E-04	642	1.19E-04	709	1.17E-05	776	1.60E-06
442	9.04E-05	509	1.27E-04	576	2.08E-04	643	1.16E-04	710	1.13E-05	777	1.60E-06
443	1.00E-04	510	1.28E-04	577	2.09E-04	644	1.14E-04	711	1.09E-05	778	1.30E-06
444	1.08E-04	511	1.31E-04	578	2.09E-04	645	1.16E-04	712	1.06E-05	779	1.30E-06
445	1.19E-04	512	1.32E-04	579	2.10E-04	646	1.58E-04	713	1.04E-05	780	1.30E-06
446	1.27E-04	513	1.35E-04	580	2.10E-04	647	2.40E-04	714	9.90E-06	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

Model No.	TKBEAM2B @15W3000K	Sample ID	250903025-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 <math>25 \pm 1^\circ\text{C}</math>, 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 <math>\pm 0.2</math> 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 <math>1.0^\circ</math> vertical intervals and <math>15^\circ</math> horizontal intervals.</p>

#### Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60	0.135	15.9	0.985
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

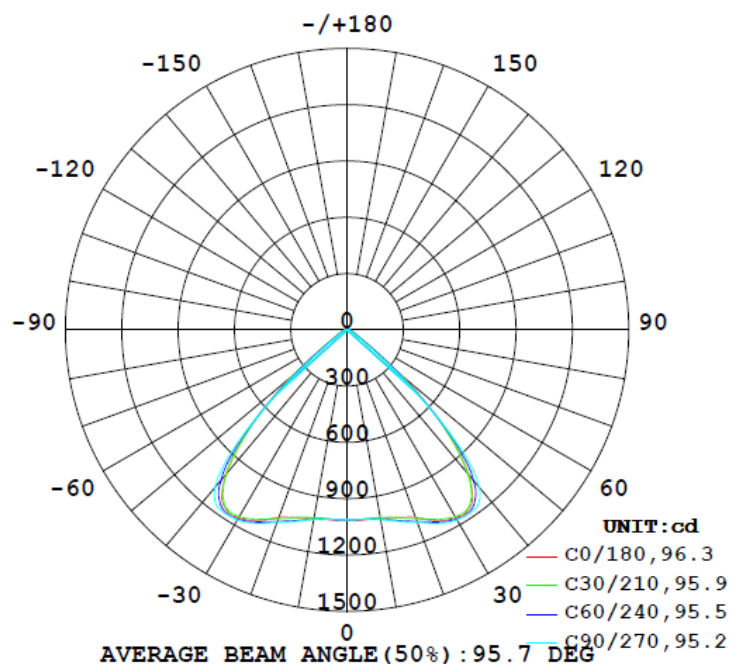
#### Test Result

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°)
2394	95.9	109.4	70.6	93.4	150.6	99.4%

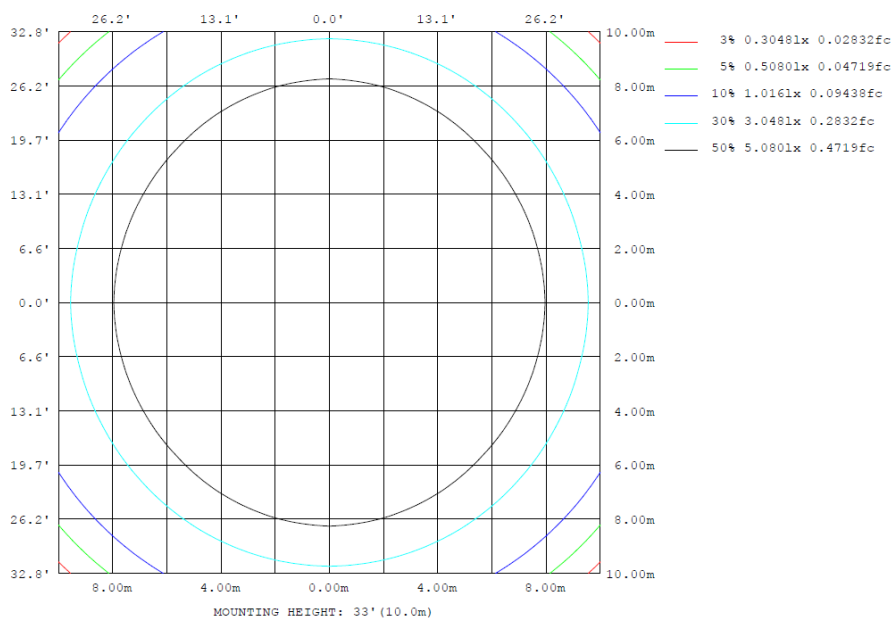
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

### Zonal Lumen Summary

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	1017	1021	1026	1021	1017	1021	1026	1021	0- 10	96.86	96.86	4.05,4.05
20	1064	1079	1091	1079	1064	1079	1091	1079	10- 20	297.0	393.8	16.4,16.4
30	1157	1156	1169	1156	1157	1156	1169	1156	20- 30	519.9	913.7	38.2,38.2
40	1004	1015	1095	1015	1004	1015	1095	1015	30- 40	709.9	1624	67.8,67.8
50	375.1	349.6	300.2	349.6	375.1	349.6	300.2	349.6	40- 50	547.0	2171	90.7,90.7
60	73.74	64.56	45.42	64.56	73.74	64.56	45.42	64.56	50- 60	134.3	2305	96.3,96.3
70	35.53	30.39	22.55	30.39	35.53	30.39	22.55	30.39	60- 70	41.98	2347	98,98
80	11.25	14.66	14.07	14.66	11.25	14.66	14.07	14.66	70- 80	22.26	2369	99,99
90	1.943	7.042	7.994	7.042	1.943	7.042	7.994	7.042	80- 90	10.34	2379	99.4,99.4
100	1.645	3.236	6.369	3.236	1.645	3.236	6.369	3.236	90-100	4.397	2384	99.6,99.6
110	1.258	0.9537	3.044	0.9537	1.258	0.9537	3.044	0.9537	100-110	2.223	2386	99.7,99.7
120	1.931	0.9516	0.8556	0.9516	1.931	0.9516	0.8556	0.9516	110-120	1.175	2387	99.7,99.7
130	4.159	1.047	0.8556	1.047	4.159	1.047	0.8556	1.047	120-130	1.045	2388	99.8,99.8
140	5.711	1.808	1.614	1.808	5.711	1.808	1.614	1.808	130-140	1.334	2390	99.8,99.8
150	6.195	2.665	2.186	2.665	6.195	2.665	2.186	2.665	140-150	1.704	2391	99.9,99.9
160	6.195	2.664	2.282	2.664	6.195	2.664	2.282	2.664	150-160	1.393	2393	99.9,99.9
170	9.099	3.799	3.134	3.799	9.099	3.799	3.134	3.799	160-170	1.025	2394	100,100
180	9.487	4.187	3.517	4.187	9.487	4.187	3.517	4.187	170-180	0.4558	2394	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	96.86	0-10	96.86	4.05%
10-20	296.97	0-20	393.83	16.45%
20-30	519.89	0-30	913.72	38.17%
30-40	709.89	0-40	1623.61	67.83%
40-50	546.97	0-50	2170.58	90.68%
50-60	134.26	0-60	2304.84	96.29%
60-70	41.98	0-70	2346.82	98.04%
70-80	22.26	0-80	2369.08	98.97%
80-90	10.34	0-90	2379.42	99.40%
90-100	4.40	0-100	2383.82	99.59%
100-110	2.22	0-110	2386.04	99.68%
110-120	1.17	0-120	2387.21	99.73%
120-130	1.05	0-130	2388.26	99.77%
130-140	1.33	0-140	2389.59	99.83%
140-150	1.70	0-150	2391.29	99.90%
150-160	1.39	0-160	2392.68	99.96%
160-170	1.03	0-170	2393.71	100.00%
170-180	0.46	0-180	2394.17	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	1015	1013	1010	1012	1015	1010	1013	1010	1015	1012	1010	1013	1015	1013	1010	1012	1015	1010	1013
5	1016	1012	1011	1014	1012	1009	1012	1009	1012	1014	1011	1012	1016	1012	1011	1014	1012	1009	1012
10	1017	1012	1017	1021	1024	1024	1026	1024	1021	1017	1012	1017	1012	1017	1012	1021	1024	1024	1026
15	1036	1031	1033	1042	1052	1048	1057	1048	1052	1042	1033	1031	1036	1031	1033	1042	1052	1048	1057
20	1064	1068	1070	1079	1087	1084	1091	1084	1087	1079	1070	1068	1064	1068	1070	1079	1087	1084	1091
25	1119	1116	1114	1122	1130	1125	1138	1125	1130	1122	1114	1116	1119	1116	1114	1122	1130	1125	1138
30	1157	1147	1150	1156	1165	1160	1169	1160	1165	1156	1150	1147	1157	1147	1150	1156	1165	1160	1169
35	1145	1144	1138	1149	1161	1165	1173	1165	1161	1149	1138	1144	1145	1144	1138	1149	1161	1165	1173
40	1004	997	1001	1015	1046	1079	1095	1079	1046	1015	1001	997	1004	997	1001	1015	1046	1079	1095
45	724	718	722	728	744	753	762	753	744	728	722	718	724	718	722	728	744	753	762
50	375	369	358	350	340	310	300	310	340	350	358	369	375	369	358	350	340	310	300
55	142	141	136	129	123	108	99.9	108	123	129	136	141	142	141	136	129	123	108	99.9
60	73.7	74.4	69.7	64.6	57.7	49.9	45.4	49.9	57.7	64.6	69.7	74.4	73.7	74.4	69.7	64.6	57.7	49.9	45.4
65	50.6	49.5	45.9	41.8	36.1	31.2	29.0	31.2	36.1	41.8	45.9	49.5	50.6	49.5	45.9	41.8	36.1	31.2	29.0
70	35.5	35.7	33.4	30.4	26.1	22.6	22.6	22.6	26.1	30.4	33.4	35.7	35.5	35.7	33.4	30.4	26.1	22.6	22.6
75	27.2	23.1	22.5	21.7	19.0	16.3	17.0	16.3	19.0	21.7	22.5	23.1	27.2	23.1	22.5	21.7	19.0	16.3	17.0
80	11.2	13.1	13.9	14.7	16.2	14.6	14.1	14.6	16.2	14.7	13.9	13.1	11.2	13.1	13.9	14.7	16.2	14.6	14.1
85	6.31	7.50	9.71	9.43	9.85	8.86	11.7	8.86	9.85	9.43	9.71	7.50	6.31	7.50	9.71	9.43	9.85	8.86	11.7
90	1.94	3.85	8.06	7.04	5.85	5.82	7.99	5.82	5.85	7.04	8.06	3.85	1.94	3.85	8.06	7.04	5.85	5.82	7.99
95	1.65	2.02	3.61	3.81	4.01	4.37	6.94	4.37	4.01	3.81	3.61	2.02	1.65	2.02	3.61	3.81	4.01	4.37	6.94
100	1.65	1.34	1.90	3.24	3.91	5.22	6.37	5.22	3.91	3.24	1.90	1.34	1.65	1.34	1.90	3.24	3.91	5.22	6.37
105	1.36	1.25	1.14	1.33	2.11	3.14	4.09	3.14	2.11	1.33	1.14	1.25	1.36	1.25	1.14	1.33	2.11	3.14	4.09
110	1.26	1.15	1.05	0.95	1.24	2.19	3.04	2.19	1.24	0.95	1.05	1.15	1.26	1.15	1.05	0.95	1.24	2.19	3.04
115	1.26	1.15	1.05	0.95	0.86	1.33	1.81	1.33	0.86	0.95	1.05	1.15	1.26	1.15	1.05	0.95	0.86	1.33	1.81
120	1.93	1.15	1.05	0.95	0.86	0.86	0.86	0.86	0.86	0.95	1.05	1.15	1.93	1.15	1.05	0.95	0.86	0.86	0.86
125	3.28	1.15	1.14	0.95	0.86	0.86	0.86	0.86	0.86	0.95	1.14	1.15	3.28	1.15	1.14	0.95	0.86	0.86	0.86
130	4.16	1.34	1.14	1.05	1.05	0.86	0.86	0.86	1.05	1.05	1.14	1.34	4.16	1.34	1.14	1.05	1.05	0.86	0.86
135	4.93	1.92	1.52	1.24	1.15	1.14	1.05	1.14	1.15	1.24	1.52	1.92	4.93	1.92	1.52	1.24	1.15	1.14	1.05
140	5.71	2.69	1.99	1.81	1.62	1.71	1.61	1.71	1.62	1.81	1.99	2.69	5.71	2.69	1.99	1.81	1.62	1.71	1.61
145	6.19	3.36	2.66	2.47	2.19	2.09	1.99	2.09	2.19	2.47	2.66	3.36	6.19	3.36	2.66	2.47	2.19	2.09	1.99
150	6.20	3.45	2.76	2.67	2.48	2.38	2.19	2.38	2.48	2.67	2.76	3.45	6.20	3.45	2.76	2.67	2.48	2.38	2.19
155	6.20	3.45	2.76	2.66	2.48	2.47	2.28	2.47	2.48	2.66	2.76	3.45	6.20	3.45	2.76	2.66	2.48	2.47	2.28
160	6.20	3.45	2.76	2.66	2.48	2.47	2.28	2.47	2.48	2.66	2.76	3.45	6.20	3.45	2.76	2.66	2.48	2.47	2.28
165	8.13	4.79	3.42	3.04	2.86	2.66	2.66	2.66	2.86	3.04	3.42	4.79	8.13	4.79	3.42	3.04	2.86	2.66	2.66
170	9.10	6.13	4.47	3.80	3.52	3.33	3.13	3.33	3.52	3.80	4.47	6.13	9.10	6.13	4.47	3.80	3.52	3.33	3.13
175	9.49	6.52	4.75	4.09	3.72	3.61	3.52	3.61	3.72	4.09	4.75	6.52	9.49	6.52	4.75	4.09	3.72	3.61	3.52
180	9.49	6.52	4.75	4.19	3.91	3.61	3.52	3.61	3.91	4.19	4.75	6.52	9.49	6.52	4.75	4.19	3.91	3.61	3.52

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1010	1015	1012	1010	1013														
5	1009	1012	1014	1011	1012														
10	1024	1024	1021	1017	1012														
15	1048	1052	1042	1033	1031														
20	1084	1087	1079	1070	1068														
25	1125	1130	1122	1114	1116														
30	1160	1165	1156	1150	1147														
35	1165	1161	1149	1138	1144														
40	1079	1046	1015	1001	997														
45	753	744	728	722	718														
50	310	340	350	358	369														
55	108	123	129	136	141														
60	49.9	57.7	64.6	69.7	74.4														
65	31.2	36.1	41.8	45.9	49.5														
70	22.6	26.1	30.4	33.4	35.7														
75	16.3	19.0	21.7	22.5	23.1														
80	14.6	16.2	14.7	13.9	13.1														
85	8.86	9.85	9.43	9.71	7.50														
90	5.82	5.85	7.04	8.06	3.85														
95	4.37	4.01	3.81	3.61	2.02														
100	5.22	3.91	3.24	1.90	1.34														
105	3.14	2.11	1.33	1.14	1.25														
110	2.19	1.24	0.95	1.05	1.15														
115	1.33	0.86	0.95	1.05	1.15														
120	0.86	0.86	0.95	1.05	1.15														
125	0.86	0.86	0.95	1.14	1.15														
130	0.86	1.05	1.05	1.14	1.34														
135	1.14	1.15	1.24	1.52	1.92														
140	1.71	1.62	1.81	1.99	2.69														
145	2.09	2.19	2.47	2.66	3.36														
150	2.38	2.48	2.67	2.76	3.45														
155	2.47	2.48	2.66	2.76	3.45														
160	2.47	2.48	2.66	2.76	3.45														
165	2.66	2.86	3.04	3.42	4.79														
170	3.33	3.52	3.80	4.47	6.13														
175	3.61	3.72	4.09	4.75	6.52														
180	3.61	3.91	4.19	4.75	6.52														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	TKBEAM2B @15W3000K	<b>Sample ID</b>	250903025-S1
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

<b>Test Method</b>
<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

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>	<b>iTHD(%)</b>
120.0	60	0.135	15.9	0.985	10.32

## 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\*\*\*\*\*