

## Photometric Test Report

### Relevant Standards

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

Prepared For

**RAB Lighting Inc.**

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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		3889
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	127.1
			95	110	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		30.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.65
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	2725±145	2685
			4 steps	2725±83	
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		56
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		99
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		0.257
(Goniophotometer – Section 4.2)			Non-Worst Case		N/A
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		30.6
(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 @30W2700K	-	250903025-S1
2	Goniophotometer Test	2025-09-16	TKBEAM2B @30W2700K	-	250903025-S1
3	THD and PF Test	2025-09-16	TKBEAM2B @30W2700K	-	250903025-S1

### Remark (If any):

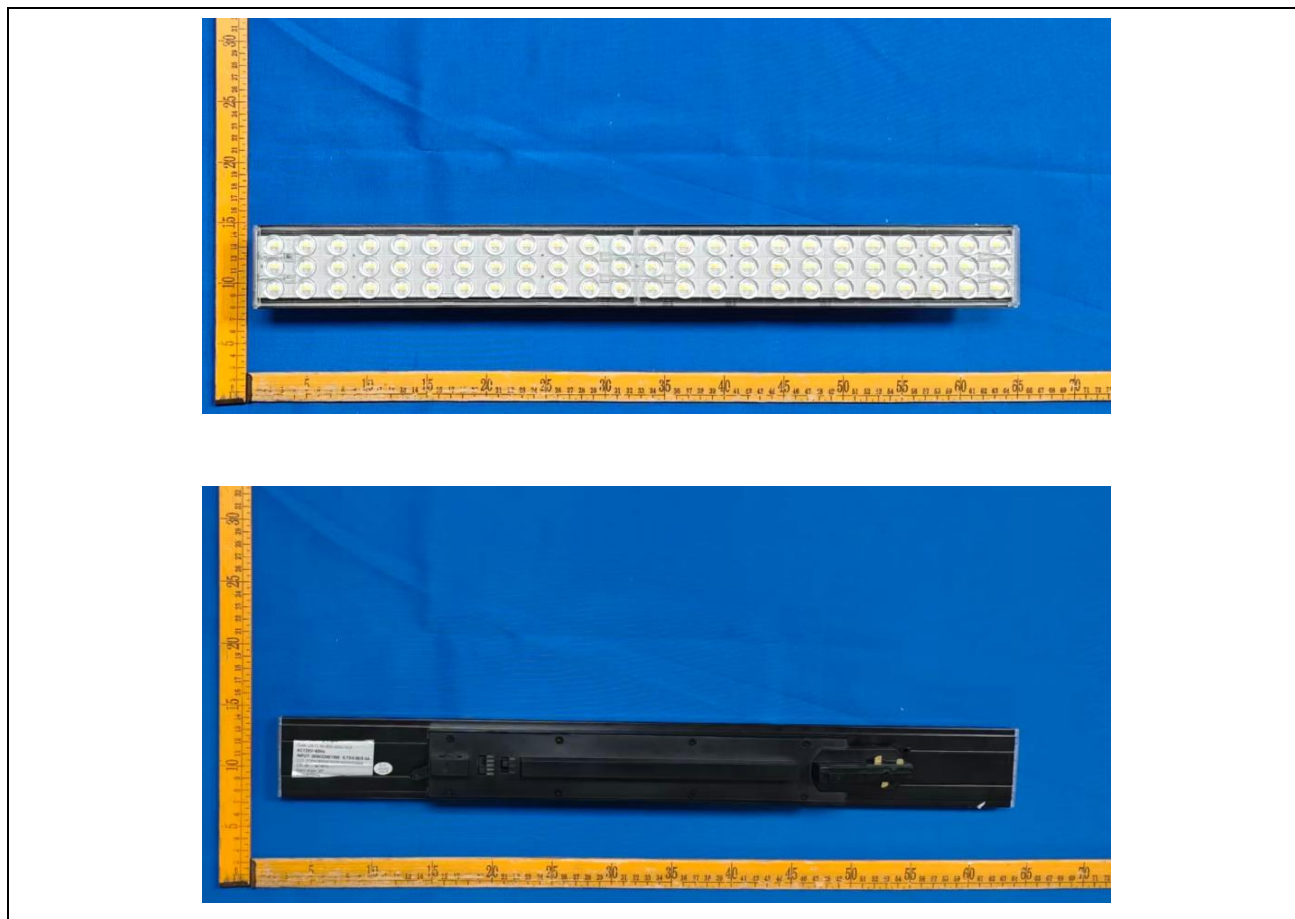
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### 3.0 Product Description

Luminaire Description: Model No. TKBEAM2B @30W2700K, 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

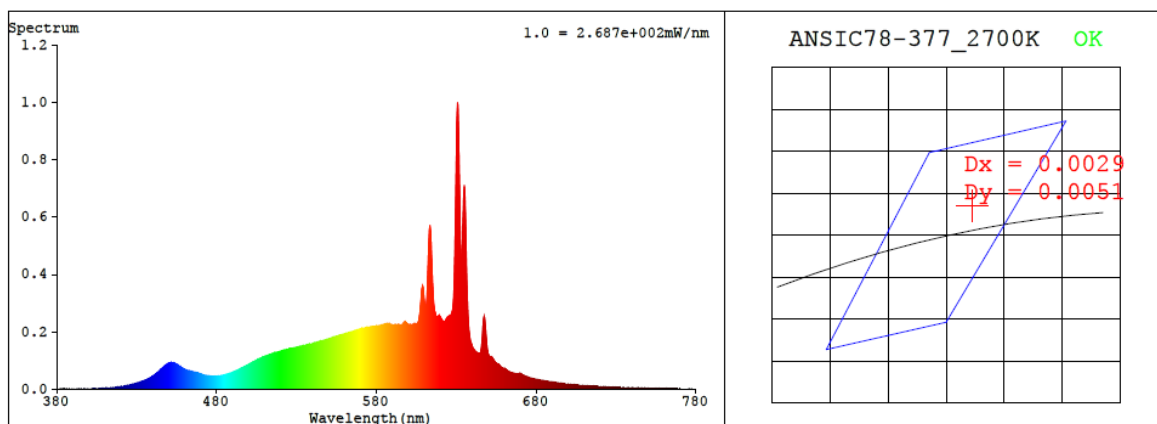
<b>Model No.</b>	TKBEAM2B @30W2700K	<b>Sample ID</b>	250903025-S1
<b>Operate time (Min.)</b>	10	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

<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	0.257	30.6	0.993

<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>
2685	92.8	56	0.0016	2.6	91	99	-6%



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4640$   $y = 0.4160$  /  $u' = 0.2627$   $v' = 0.5300$  ( $duv=1.64e-03$ )

CCT= 2685K      Prcp WL:    Ld=583.8nm      Purity=64.2%

Peak WL: Lp=631nm FWHM: =3.7nm Ratio:R=27.1% G=70.7% B=2.1%

Render Index: Ra = 92.8 AvgR = 89.6 TM30:Rf=91 Rg=99

EEI: 0.11215 A+

R1 =94    R2 =95    R3 =95    R4 =95    R5 =93    R6 =96    R7 =92

R8 =82      R9 =56      R10=87      R11=96      R12=83      R13=94      R14=96      R15=89

## 4.1 Integrating Sphere Test

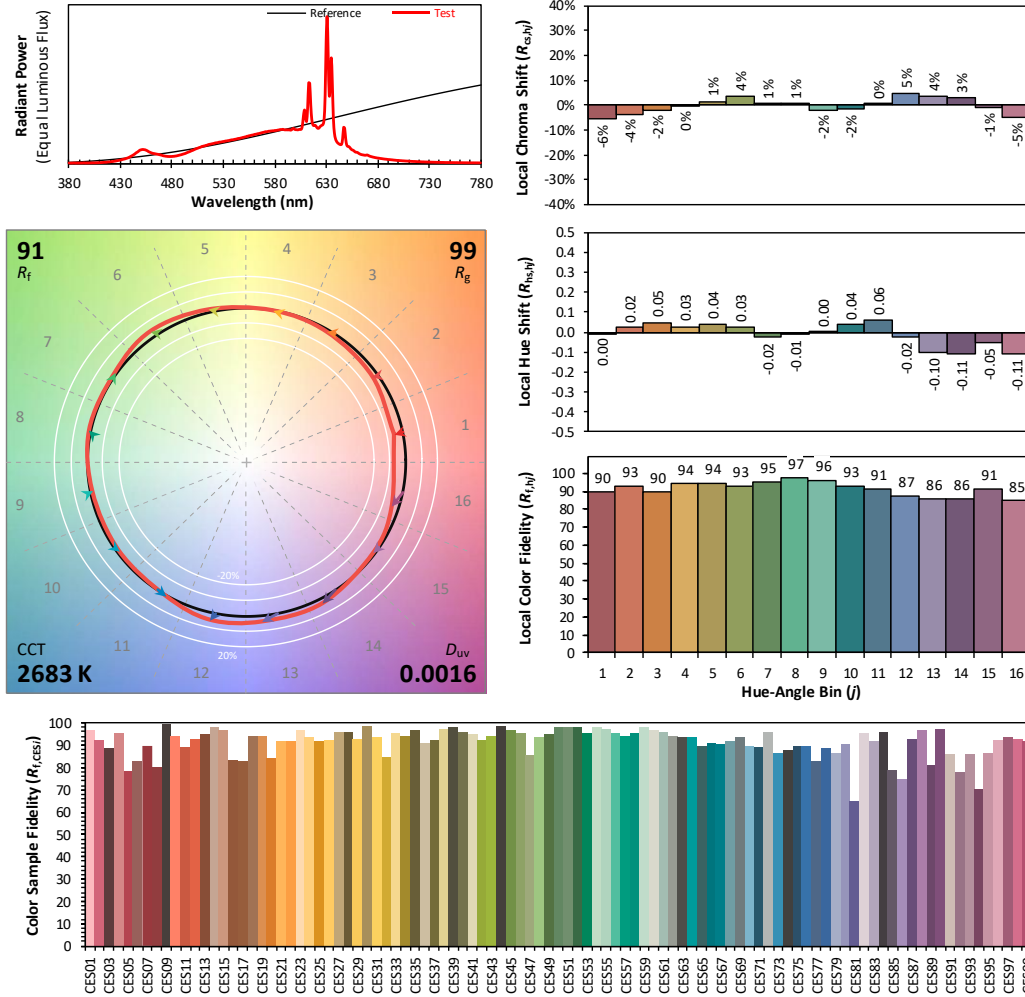
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/9/25

Model: TKBEAM2B @30W2700K



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

$x$  0.4640  
 $y$  0.4159  
 $u'$  0.2628  
 $v'$  0.5300

CIE 13.3-1995  
(CRI)

$R_a$  93  
 $R_g$  57



## 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	1.00E-06	447	7.77E-05	514	1.21E-04	581	2.21E-04	648	2.34E-04	715	1.11E-05
381	0.00E+00	448	8.32E-05	515	1.24E-04	582	2.22E-04	649	1.63E-04	716	1.12E-05
382	5.00E-07	449	8.80E-05	516	1.26E-04	583	2.23E-04	650	1.23E-04	717	1.07E-05
383	0.00E+00	450	8.99E-05	517	1.28E-04	584	2.24E-04	651	1.13E-04	718	1.04E-05
384	9.00E-07	451	9.17E-05	518	1.29E-04	585	2.26E-04	652	1.12E-04	719	9.80E-06
385	1.40E-06	452	9.20E-05	519	1.31E-04	586	2.27E-04	653	1.05E-04	720	9.60E-06
386	3.00E-07	453	9.08E-05	520	1.32E-04	587	2.27E-04	654	9.64E-05	721	9.30E-06
387	0.00E+00	454	8.98E-05	521	1.34E-04	588	2.29E-04	655	9.05E-05	722	9.10E-06
388	9.00E-07	455	8.66E-05	522	1.36E-04	589	2.26E-04	656	8.75E-05	723	8.40E-06
389	2.00E-07	456	8.36E-05	523	1.37E-04	590	2.25E-04	657	8.31E-05	724	8.40E-06
390	5.00E-07	457	7.87E-05	524	1.38E-04	591	2.25E-04	658	7.66E-05	725	8.40E-06
391	5.00E-07	458	7.52E-05	525	1.40E-04	592	2.25E-04	659	7.37E-05	726	7.70E-06
392	5.00E-07	459	7.22E-05	526	1.42E-04	593	2.24E-04	660	7.29E-05	727	7.70E-06
393	5.00E-07	460	6.93E-05	527	1.42E-04	594	2.25E-04	661	6.95E-05	728	7.60E-06
394	1.50E-06	461	6.68E-05	528	1.43E-04	595	2.23E-04	662	6.46E-05	729	7.30E-06
395	1.40E-06	462	6.52E-05	529	1.45E-04	596	2.24E-04	663	6.10E-05	730	6.90E-06
396	3.00E-07	463	6.41E-05	530	1.46E-04	597	2.29E-04	664	5.83E-05	731	6.80E-06
397	1.20E-06	464	6.24E-05	531	1.47E-04	598	2.35E-04	665	5.65E-05	732	6.60E-06
398	9.00E-07	465	6.12E-05	532	1.49E-04	599	2.30E-04	666	5.53E-05	733	6.30E-06
399	1.00E-06	466	5.97E-05	533	1.50E-04	600	2.26E-04	667	5.39E-05	734	6.20E-06
400	1.20E-06	467	5.84E-05	534	1.51E-04	601	2.26E-04	668	5.32E-05	735	6.00E-06
401	1.10E-06	468	5.68E-05	535	1.52E-04	602	2.25E-04	669	5.40E-05	736	5.80E-06
402	1.20E-06	469	5.49E-05	536	1.54E-04	603	2.26E-04	670	5.50E-05	737	5.50E-06
403	2.00E-06	470	5.36E-05	537	1.56E-04	604	2.28E-04	671	5.16E-05	738	5.50E-06
404	1.70E-06	471	5.07E-05	538	1.57E-04	605	2.27E-04	672	4.82E-05	739	5.20E-06
405	1.90E-06	472	4.90E-05	539	1.58E-04	606	2.31E-04	673	4.55E-05	740	5.00E-06
406	2.20E-06	473	4.80E-05	540	1.59E-04	607	2.60E-04	674	4.37E-05	741	4.80E-06
407	2.40E-06	474	4.65E-05	541	1.61E-04	608	3.25E-04	675	4.17E-05	742	4.70E-06
408	2.80E-06	475	4.59E-05	542	1.62E-04	609	3.59E-04	676	4.00E-05	743	4.60E-06
409	3.00E-06	476	4.49E-05	543	1.63E-04	610	3.08E-04	677	3.85E-05	744	4.60E-06
410	3.10E-06	477	4.49E-05	544	1.66E-04	611	2.84E-04	678	3.68E-05	745	4.30E-06
411	3.60E-06	478	4.46E-05	545	1.67E-04	612	3.79E-04	679	3.57E-05	746	4.10E-06
412	4.20E-06	479	4.48E-05	546	1.68E-04	613	5.42E-04	680	3.42E-05	747	4.00E-06
413	4.60E-06	480	4.49E-05	547	1.70E-04	614	5.38E-04	681	3.36E-05	748	4.00E-06
414	5.40E-06	481	4.58E-05	548	1.71E-04	615	3.94E-04	682	3.23E-05	749	3.90E-06
415	5.60E-06	482	4.61E-05	549	1.74E-04	616	2.95E-04	683	3.12E-05	750	4.00E-06
416	6.00E-06	483	4.74E-05	550	1.75E-04	617	2.61E-04	684	3.04E-05	751	3.50E-06
417	6.90E-06	484	4.83E-05	551	1.77E-04	618	2.53E-04	685	2.92E-05	752	3.60E-06
418	8.00E-06	485	4.99E-05	552	1.78E-04	619	2.56E-04	686	2.82E-05	753	3.60E-06
419	8.00E-06	486	5.17E-05	553	1.82E-04	620	2.51E-04	687	2.72E-05	754	3.30E-06
420	9.10E-06	487	5.34E-05	554	1.82E-04	621	2.41E-04	688	2.65E-05	755	3.40E-06
421	1.04E-05	488	5.53E-05	555	1.85E-04	622	2.35E-04	689	2.58E-05	756	3.10E-06
422	1.05E-05	489	5.69E-05	556	1.86E-04	623	2.37E-04	690	2.46E-05	757	3.30E-06
423	1.17E-05	490	5.91E-05	557	1.88E-04	624	2.46E-04	691	2.41E-05	758	3.00E-06
424	1.31E-05	491	6.13E-05	558	1.89E-04	625	2.52E-04	692	2.36E-05	759	2.70E-06
425	1.38E-05	492	6.34E-05	559	1.91E-04	626	2.56E-04	693	2.27E-05	760	2.70E-06
426	1.52E-05	493	6.55E-05	560	1.93E-04	627	2.62E-04	694	2.22E-05	761	2.80E-06
427	1.67E-05	494	6.88E-05	561	1.95E-04	628	2.96E-04	695	2.13E-05	762	2.70E-06
428	1.82E-05	495	7.17E-05	562	1.95E-04	629	4.59E-04	696	2.04E-05	763	2.60E-06
429	1.95E-05	496	7.46E-05	563	1.98E-04	630	8.30E-04	697	1.98E-05	764	2.40E-06
430	2.13E-05	497	7.71E-05	564	1.99E-04	631	9.91E-04	698	1.91E-05	765	2.50E-06
431	2.29E-05	498	8.01E-05	565	2.01E-04	632	7.12E-04	699	1.83E-05	766	2.30E-06
432	2.50E-05	499	8.35E-05	566	2.03E-04	633	4.57E-04	700	1.81E-05	767	2.30E-06
433	2.65E-05	500	8.58E-05	567	2.05E-04	634	5.52E-04	701	1.75E-05	768	2.20E-06
434	2.82E-05	501	8.90E-05	568	2.07E-04	635	7.12E-04	702	1.69E-05	769	2.00E-06
435	3.04E-05	502	9.23E-05	569	2.08E-04	636	5.38E-04	703	1.65E-05	770	2.20E-06
436	3.29E-05	503	9.55E-05	570	2.10E-04	637	3.05E-04	704	1.58E-05	771	2.00E-06
437	3.52E-05	504	9.83E-05	571	2.12E-04	638	2.05E-04	705	1.54E-05	772	1.80E-06
438	3.82E-05	505	1.01E-04	572	2.12E-04	639	1.66E-04	706	1.49E-05	773	2.00E-06
439	4.16E-05	506	1.04E-04	573	2.13E-04	640	1.49E-04	707	1.43E-05	774	1.80E-06
440	4.57E-05	507	1.06E-04	574	2.16E-04	641	1.38E-04	708	1.39E-05	775	1.90E-06
441	4.94E-05	508	1.08E-04	575	2.16E-04	642	1.32E-04	709	1.37E-05	776	1.70E-06
442	5.33E-05	509	1.12E-04	576	2.17E-04	643	1.28E-04	710	1.30E-05	777	1.80E-06
443	5.80E-05	510	1.14E-04	577	2.18E-04	644	1.25E-04	711	1.26E-05	778	1.60E-06
444	6.25E-05	511	1.16E-04	578	2.19E-04	645	1.27E-04	712	1.24E-05	779	1.60E-06
445	6.89E-05	512	1.17E-04	579	2.19E-04	646	1.64E-04	713	1.18E-05	780	1.60E-06
446	7.29E-05	513	1.20E-04	580	2.20E-04	647	2.41E-04	714	1.15E-05	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

Model No.	TKBEAM2B @30W2700K	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 <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	0.257	30.6	0.993
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

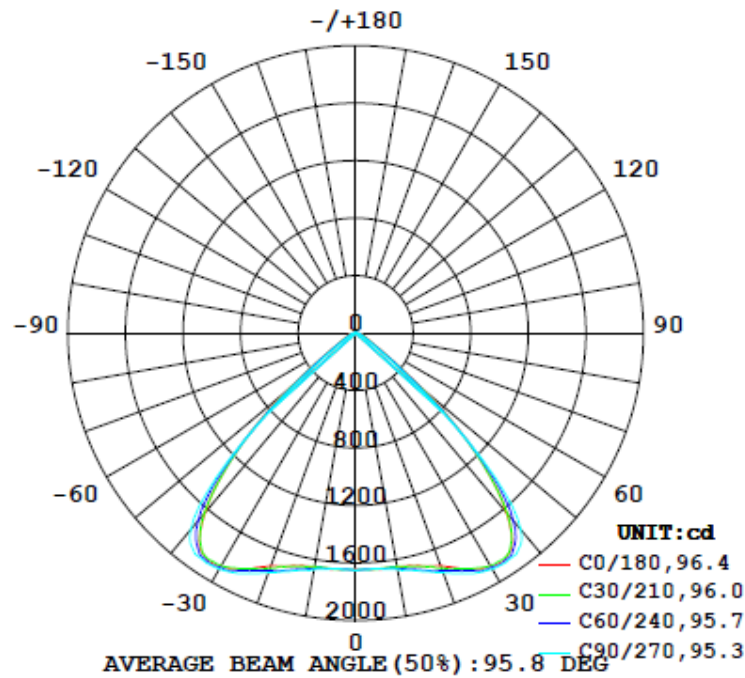
#### Test Result

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°)
3889	96.0	109.4	70.8	93.6	127.1	99.4%

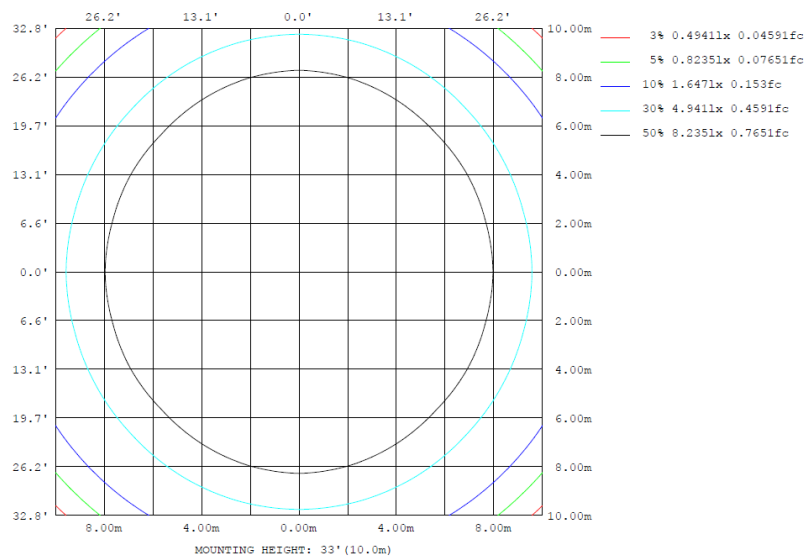
## 4.2 Goniophotometer Test

### 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	$\%lum, lamp$
10	1658	1655	1669	1655	1658	1655	1669	1655	0- 10	157.2	157.2	4.04,4.04
20	1723	1740	1774	1740	1723	1740	1774	1740	10- 20	481.2	638.4	16.4,16.4
30	1874	1868	1897	1868	1874	1868	1897	1868	20- 30	841.9	1480	38.1,38.1
40	1631	1650	1785	1650	1631	1650	1785	1650	30- 40	1153	2633	67.7,67.7
50	617.3	569.5	494.1	569.5	617.3	569.5	494.1	569.5	40- 50	894.0	3527	90.7,90.7
60	120.6	105.5	73.51	105.5	120.6	105.5	73.51	105.5	50- 60	219.7	3747	96.3,96.3
70	57.36	48.11	36.03	48.11	57.36	48.11	36.03	48.11	60- 70	67.72	3814	98.1,98.1
80	17.85	23.14	22.32	23.14	17.85	23.14	22.32	23.14	70- 80	35.44	3850	99,99
90	2.836	10.80	12.39	10.80	2.836	10.80	12.39	10.80	80- 90	16.28	3866	99.4,99.4
100	1.935	4.833	10.44	4.833	1.935	4.833	10.44	4.833	90-100	6.816	3873	99.6,99.6
110	1.838	1.326	4.754	1.326	1.838	1.326	4.754	1.326	100-110	3.351	3876	99.7,99.7
120	3.480	1.231	1.044	1.231	3.480	1.231	1.044	1.231	110-120	1.688	3878	99.7,99.7
130	6.957	1.419	1.328	1.419	6.957	1.419	1.328	1.419	120-130	1.505	3880	99.7,99.7
140	9.286	3.028	2.748	3.028	9.286	3.028	2.748	3.028	130-140	2.240	3882	99.8,99.8
150	10.25	4.071	3.703	4.071	10.25	4.071	3.703	4.071	140-150	2.836	3885	99.9,99.9
160	10.25	4.071	3.703	4.071	10.25	4.071	3.703	4.071	150-160	2.275	3887	99.9,99.9
170	15.09	6.241	5.502	6.241	15.09	6.241	5.502	6.241	160-170	1.698	3889	100,100
180	15.86	6.912	5.887	6.912	15.86	6.912	5.887	6.912	170-180	0.7567	3889	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	157.21	0-10	157.21	4.04%
10-20	481.23	0-20	638.44	16.42%
20-30	841.93	0-30	1480.37	38.07%
30-40	1152.63	0-40	2633.00	67.71%
40-50	893.99	0-50	3526.99	90.70%
50-60	219.72	0-60	3746.71	96.35%
60-70	67.72	0-70	3814.43	98.09%
70-80	35.44	0-80	3849.87	99.00%
80-90	16.28	0-90	3866.15	99.42%
90-100	6.82	0-100	3872.97	99.60%
100-110	3.35	0-110	3876.32	99.68%
110-120	1.69	0-120	3878.01	99.73%
120-130	1.51	0-130	3879.52	99.77%
130-140	2.24	0-140	3881.76	99.82%
140-150	2.84	0-150	3884.60	99.90%
150-160	2.28	0-160	3886.88	99.96%
160-170	1.70	0-170	3888.58	100.00%
170-180	0.76	0-180	3889.34	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	1644	1639	1650	1635	1651	1644	1653	1644	1651	1635	1650	1639	1644	1639	1650	1635	1651	1644	1653
5	1646	1637	1651	1637	1648	1648	1645	1648	1637	1651	1637	1646	1637	1651	1637	1648	1648	1645	1646
10	1658	1630	1650	1655	1665	1666	1669	1666	1665	1655	1630	1658	1630	1650	1655	1665	1666	1669	1665
15	1675	1664	1680	1684	1703	1710	1713	1710	1703	1684	1680	1664	1675	1664	1680	1684	1703	1710	1713
20	1723	1716	1740	1740	1760	1768	1774	1768	1760	1740	1740	1716	1723	1716	1740	1740	1760	1768	1774
25	1812	1795	1809	1813	1824	1829	1846	1829	1824	1813	1809	1795	1812	1795	1809	1813	1824	1829	1846
30	1874	1853	1872	1868	1883	1882	1897	1882	1883	1868	1872	1853	1874	1853	1872	1868	1883	1882	1897
35	1863	1849	1860	1860	1886	1893	1900	1893	1886	1860	1860	1849	1863	1849	1860	1860	1886	1893	1900
40	1631	1621	1640	1650	1702	1757	1785	1757	1702	1650	1640	1621	1631	1621	1640	1650	1702	1757	1785
45	1186	1170	1178	1192	1217	1239	1246	1239	1217	1192	1178	1170	1186	1170	1178	1192	1217	1239	1246
50	617	600	592	570	560	512	494	512	560	570	592	600	617	600	592	570	560	512	494
55	232	230	222	211	200	176	162	176	200	211	222	230	232	230	222	211	200	176	162
60	121	121	114	105	94.2	81.1	73.5	81.1	94.2	105	114	121	121	114	105	94.2	81.1	73.5	81.1
65	82.3	79.5	74.0	67.7	58.4	50.1	46.3	50.1	58.4	67.7	74.0	79.5	82.3	79.5	74.0	67.7	58.4	50.1	46.3
70	57.4	56.3	53.9	48.1	41.6	36.0	36.0	36.0	41.6	48.1	53.9	56.3	57.4	56.3	53.9	48.1	41.6	36.0	36.0
75	43.5	36.6	35.6	34.1	30.4	25.9	26.7	25.9	30.4	34.1	35.6	36.6	43.5	36.6	35.6	34.1	30.4	25.9	26.7
80	17.9	20.2	22.3	23.1	25.9	23.5	22.3	23.5	25.9	23.1	22.3	20.2	17.9	20.2	22.3	23.1	25.9	23.5	22.3
85	9.91	11.7	15.3	14.6	15.4	14.1	19.1	14.1	15.4	14.6	15.3	11.7	9.91	11.7	15.3	14.6	15.4	14.1	19.1
90	2.84	5.85	13.2	10.8	9.25	9.15	12.4	9.15	9.25	10.8	13.2	5.85	2.84	5.85	13.2	10.8	9.25	9.15	12.4
95	2.03	3.16	5.43	5.78	6.29	7.04	10.7	7.04	6.29	5.78	5.43	3.16	2.03	3.16	5.43	5.78	6.29	7.04	10.7
100	1.93	2.19	2.87	4.83	6.58	8.57	10.4	8.57	6.58	4.83	2.87	2.19	1.93	2.19	2.87	4.83	6.58	8.57	10.4
105	1.93	1.81	1.53	1.90	2.96	4.67	6.37	4.67	2.96	1.90	1.53	1.81	1.93	1.81	1.53	1.90	2.96	4.67	6.37
110	1.84	1.72	1.43	1.33	1.91	3.43	4.75	3.43	1.91	1.33	1.43	1.72	1.84	1.72	1.43	1.33	1.91	3.43	4.75
115	1.84	1.72	1.43	1.23	1.14	2.01	2.57	2.01	1.14	1.23	1.43	1.72	1.84	1.72	1.43	1.23	1.14	2.01	2.57
120	3.48	1.72	1.43	1.23	1.14	1.05	1.04	1.05	1.14	1.23	1.43	1.72	3.48	1.72	1.43	1.23	1.14	1.05	1.04
125	5.32	1.72	1.43	1.23	1.14	1.05	1.04	1.05	1.14	1.23	1.43	1.72	5.32	1.72	1.43	1.23	1.14	1.05	1.04
130	6.96	2.57	1.81	1.42	1.43	1.33	1.33	1.43	1.42	1.81	2.57	6.96	2.57	1.81	1.42	1.43	1.33	1.33	1.43
135	8.12	3.33	2.67	2.36	2.00	2.09	1.99	2.09	2.00	2.36	2.67	3.33	8.12	3.33	2.67	2.36	2.00	2.09	1.99
140	9.29	4.39	3.43	3.03	2.95	2.86	2.75	2.86	2.95	3.03	3.43	4.39	9.29	4.39	3.43	3.03	2.95	2.86	2.75
145	10.3	5.63	4.28	3.88	3.72	3.62	3.42	3.62	3.72	3.88	4.28	5.63	10.3	5.63	4.28	3.88	3.72	3.62	3.42
150	10.3	5.73	4.48	4.07	4.10	4.00	3.70	4.00	4.10	4.07	4.48	5.73	10.3	5.73	4.48	4.07	4.10	4.00	3.70
155	10.3	5.91	4.57	4.07	4.10	4.19	3.70	4.19	4.10	4.07	4.57	5.91	10.3	5.91	4.57	4.07	4.10	4.19	3.70
160	10.3	5.44	4.38	4.07	4.10	4.10	3.70	4.10	4.10	4.07	4.38	5.44	10.3	5.44	4.38	4.07	4.10	4.10	3.70
165	13.4	7.92	5.90	5.10	4.77	4.57	4.55	4.57	4.77	5.10	5.90	7.92	13.4	7.92	5.90	5.10	4.77	4.57	4.55
170	15.1	10.1	7.43	6.24	5.72	5.62	5.50	5.62	5.72	6.24	7.43	10.1	15.1	10.1	7.43	6.24	5.72	5.62	5.50
175	15.9	10.7	8.09	6.62	6.20	6.00	5.88	6.00	6.20	6.62	8.09	10.7	15.9	10.7	8.09	6.62	6.20	6.00	5.88
180	15.9	10.7	8.00	6.91	6.20	6.00	5.89	6.00	6.20	6.91	8.00	10.7	15.9	10.7	8.00	6.91	6.20	6.00	5.89

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1644	1651	1635	1650	1639														
5	1648	1648	1637	1651	1637														
10	1666	1665	1655	1650	1630														
15	1710	1703	1684	1680	1664														
20	1768	1760	1740	1740	1716														
25	1829	1824	1813	1809	1795														
30	1882	1883	1868	1872	1853														
35	1893	1886	1860	1860	1849														
40	1757	1702	1650	1640	1621														
45	1239	1217	1192	1178	1170														
50	512	560	570	592	600														
55	176	200	211	222	230														
60	81.1	94.2	105	114	121														
65	50.1	58.4	67.7	74.0	79.5														
70	36.0	41.6	48.1	53.9	56.3														
75	25.9	30.4	34.1	35.6	36.6														
80	23.5	25.9	23.1	22.3	20.2														
85	14.1	15.4	14.6	15.3	11.7														
90	9.15	9.25	10.8	13.2	5.85														
95	7.04	6.29	5.78	5.43	3.16														
100	8.57	6.58	4.83	2.87	2.19														
105	4.67	2.96	1.90	1.53	1.81														
110	3.43	1.91	1.33	1.43	1.72														
115	2.01	1.14	1.23	1.43	1.72														
120	1.05	1.14	1.23	1.43	1.72														
125	1.05	1.14	1.23	1.43	1.72														
130	1.33	1.43	1.42	1.81	2.57														
135	2.09	2.00	2.36	2.67	3.33														
140	2.86	2.95	3.03	3.43	4.39														
145	3.62	3.72	3.88	4.28	5.63														
150	4.00	4.10	4.07	4.48	5.73														
155	4.19	4.10	4.07	4.57	5.91														
160	4.10	4.10	4.07	4.38	5.44														
165	4.57	4.77	5.10	5.90	7.92														
170	5.62	5.72	6.24	7.43	10.1														
175	6.00	6.20	6.62	8.09	10.7														
180	6.00	6.20	6.91	8.00	10.7														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	TKBEAM2B @30W2700K	<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

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.257	30.6	0.993	9.65

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