

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: 2024-12-25

Revised Date: N/A

1.0 Test Summary

DLC Technical Requirements V5.1

Architectural Flood and Spot Luminaires				
Requirement Category	Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	1000		1688
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	111.0
		105	120	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		15.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	1200V	14.05
Power Factor (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.990
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019	7 steps	3985±275	3902
		4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019 CIE13.3-1995	≥70		84.5
Minimum R9 (Integrating Sphere – Section 4.1)	ANSI/IES LM-79-2019 CIE13.3-1995	N/A		17
Minimum Rf (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	≥70		84
Minimum Rg (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	≥89		98
IES Rcs,h1 (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	-18%≤IES Rcs,h1≤+23%		-11%
Zonal Lumen Requirement (0°-90°) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	≥85%		100.0%
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		0.128
(Goniophotometer – Section 4.2)		Non-Worst Case		N/A
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		15.2
(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	2024-12-24	BULLET20 @15W4000K	ES 1st ES #3-2	241216013-S1
2	Goniophotometer Test	2024-12-24	BULLET20 @15W4000K	ES 1st ES #3-2	241216013-S1
3	THD and PF Test	2024-12-24	BULLET20 @15W4000K	ES 1st ES #3-2	241216013-S1

Remark (If any):

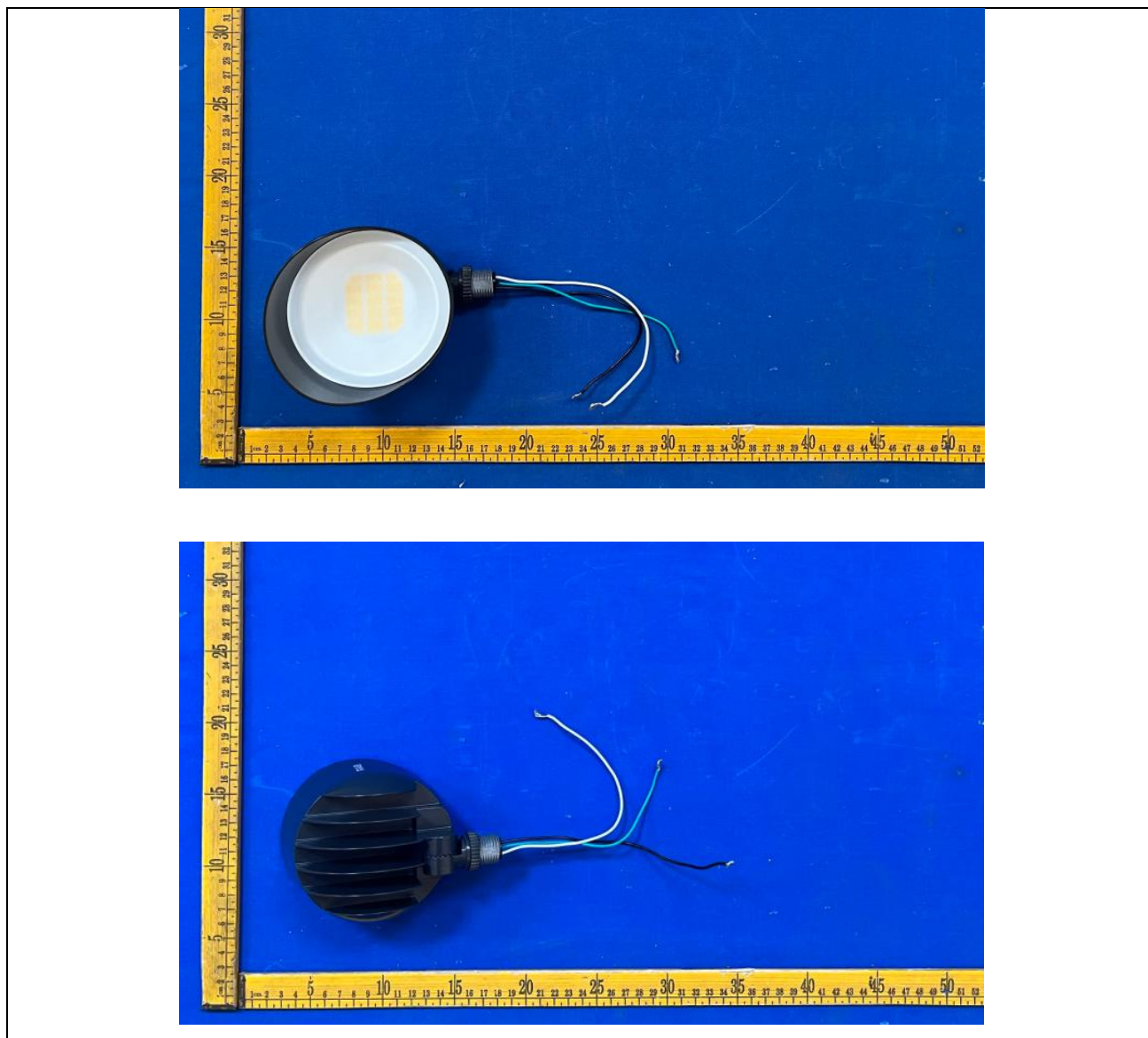
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. BULLET20 @15W4000K, color tunable from 3000K, 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.	BULLET20 @15W4000K	Sample ID	241216013-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

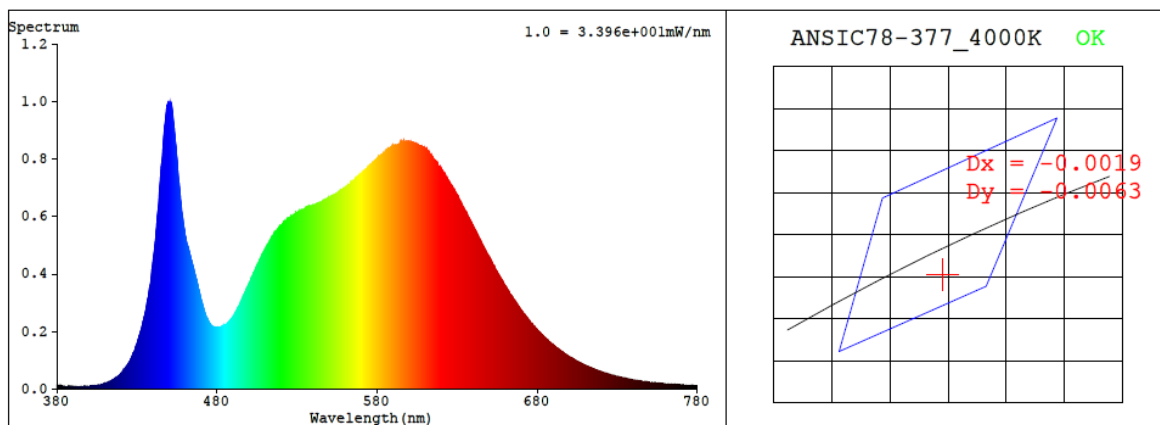
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.128	15.2	0.990

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
3902	84.5	17	-0.0024	84	98	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3829$ $y = 0.3732$ / $u' = 0.2282$ $v' = 0.5004$ ($duv = -2.39e-03$)

CCT= 3902K Prcp WL: Ld=580.8nm Purity=26.9%

Peak WL: Lp=451nm FWHM: =20.3nm Ratio:R=19.1% G=77.5% B=3.4%

Render Index: Ra = 84.5 AvgR = 78.5 TM30:Rf=84 Rg=98

EEL: 0.12632 A+

R1 =84 R2 =90 R3 =94 R4 =84 R5 =84 R6 =86 R7 =87

R8 =68 R9 =17 R10=75 R11=84 R12=65 R13=86 R14=96 R15=79

4.1 Integrating Sphere Test

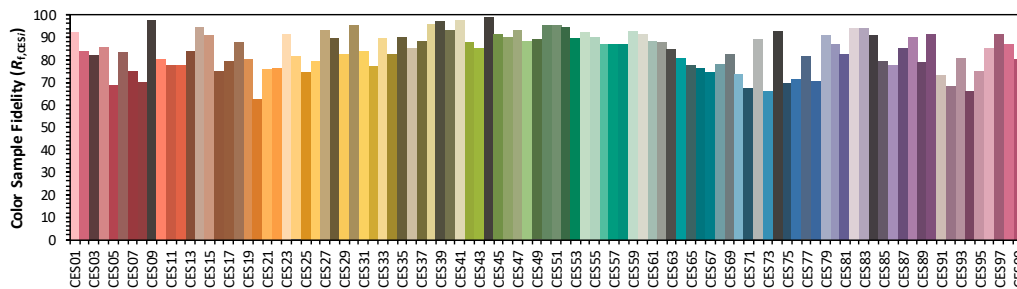
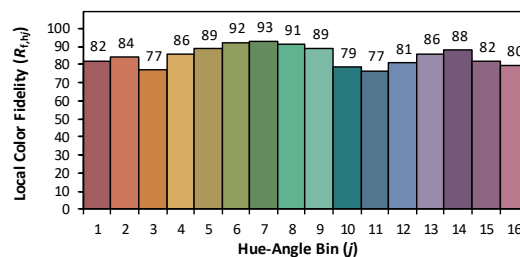
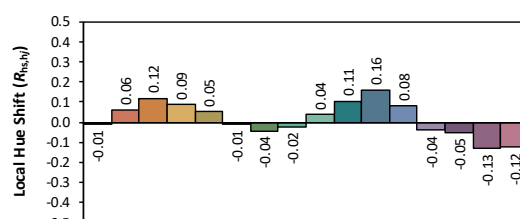
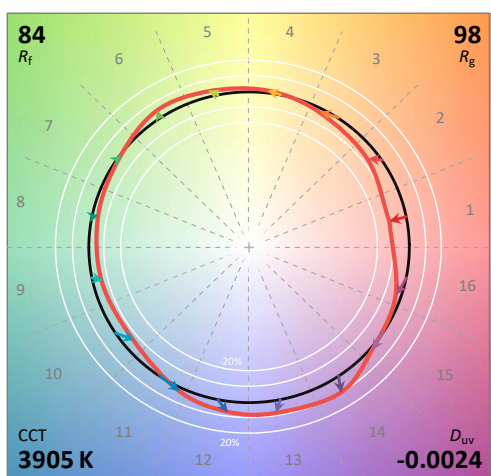
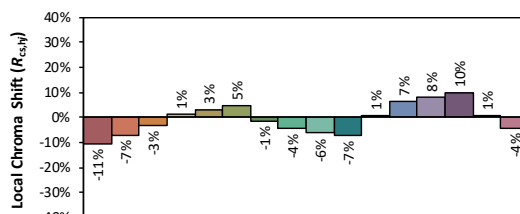
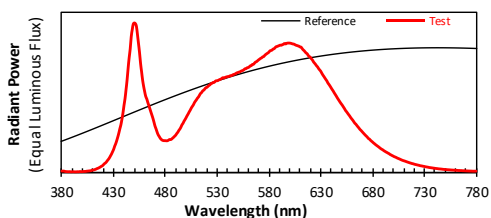
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2024/12/25

Model: BULLET20 @15W4000K



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

x 0.3829
 y 0.3731
 u' 0.2282
 v' 0.5003

CIE 13.3-1995
(CRI)
 R_a 84
 R_g 17

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	1.30E-05	447	9.03E-04	514	5.28E-04	581	8.10E-04	648	4.78E-04	715	7.02E-05
381	1.30E-05	448	9.51E-04	515	5.34E-04	582	8.12E-04	649	4.67E-04	716	6.78E-05
382	1.29E-05	449	9.88E-04	516	5.44E-04	583	8.15E-04	650	4.57E-04	717	6.58E-05
383	1.07E-05	450	9.94E-04	517	5.49E-04	584	8.21E-04	651	4.48E-04	718	6.34E-05
384	9.70E-06	451	9.90E-04	518	5.56E-04	585	8.24E-04	652	4.37E-04	719	6.19E-05
385	9.30E-06	452	9.72E-04	519	5.65E-04	586	8.31E-04	653	4.27E-04	720	5.98E-05
386	8.80E-06	453	9.18E-04	520	5.67E-04	587	8.37E-04	654	4.15E-04	721	5.76E-05
387	9.00E-06	454	8.59E-04	521	5.74E-04	588	8.39E-04	655	4.06E-04	722	5.60E-05
388	9.10E-06	455	7.99E-04	522	5.80E-04	589	8.42E-04	656	3.97E-04	723	5.44E-05
389	7.90E-06	456	7.27E-04	523	5.84E-04	590	8.45E-04	657	3.87E-04	724	5.26E-05
390	8.60E-06	457	6.71E-04	524	5.92E-04	591	8.47E-04	658	3.78E-04	725	5.12E-05
391	8.90E-06	458	6.16E-04	525	5.95E-04	592	8.47E-04	659	3.67E-04	726	4.89E-05
392	8.20E-06	459	5.74E-04	526	6.00E-04	593	8.50E-04	660	3.59E-04	727	4.78E-05
393	7.90E-06	460	5.39E-04	527	6.00E-04	594	8.53E-04	661	3.50E-04	728	4.65E-05
394	8.10E-06	461	5.08E-04	528	6.07E-04	595	8.58E-04	662	3.40E-04	729	4.49E-05
395	8.90E-06	462	4.91E-04	529	6.11E-04	596	8.55E-04	663	3.30E-04	730	4.38E-05
396	8.30E-06	463	4.68E-04	530	6.11E-04	597	8.59E-04	664	3.24E-04	731	4.20E-05
397	9.50E-06	464	4.47E-04	531	6.14E-04	598	8.61E-04	665	3.14E-04	732	4.08E-05
398	9.80E-06	465	4.26E-04	532	6.18E-04	599	8.61E-04	666	3.06E-04	733	3.96E-05
399	9.00E-06	466	4.04E-04	533	6.21E-04	600	8.61E-04	667	2.98E-04	734	3.83E-05
400	9.80E-06	467	3.83E-04	534	6.24E-04	601	8.60E-04	668	2.89E-04	735	3.66E-05
401	1.03E-05	468	3.61E-04	535	6.30E-04	602	8.58E-04	669	2.82E-04	736	3.58E-05
402	1.07E-05	469	3.36E-04	536	6.32E-04	603	8.55E-04	670	2.74E-04	737	3.48E-05
403	1.10E-05	470	3.11E-04	537	6.30E-04	604	8.54E-04	671	2.67E-04	738	3.37E-05
404	1.23E-05	471	2.92E-04	538	6.34E-04	605	8.51E-04	672	2.59E-04	739	3.27E-05
405	1.29E-05	472	2.71E-04	539	6.37E-04	606	8.47E-04	673	2.52E-04	740	3.17E-05
406	1.38E-05	473	2.54E-04	540	6.39E-04	607	8.45E-04	674	2.45E-04	741	3.06E-05
407	1.46E-05	474	2.43E-04	541	6.40E-04	608	8.43E-04	675	2.39E-04	742	2.98E-05
408	1.57E-05	475	2.31E-04	542	6.42E-04	609	8.40E-04	676	2.30E-04	743	2.90E-05
409	1.80E-05	476	2.23E-04	543	6.45E-04	610	8.35E-04	677	2.26E-04	744	2.78E-05
410	1.96E-05	477	2.18E-04	544	6.46E-04	611	8.34E-04	678	2.18E-04	745	2.74E-05
411	2.13E-05	478	2.15E-04	545	6.50E-04	612	8.26E-04	679	2.12E-04	746	2.66E-05
412	2.35E-05	479	2.15E-04	546	6.53E-04	613	8.17E-04	680	2.06E-04	747	2.60E-05
413	2.62E-05	480	2.15E-04	547	6.55E-04	614	8.11E-04	681	2.00E-04	748	2.49E-05
414	2.96E-05	481	2.14E-04	548	6.60E-04	615	8.02E-04	682	1.94E-04	749	2.43E-05
415	3.21E-05	482	2.14E-04	549	6.64E-04	616	7.95E-04	683	1.88E-04	750	2.36E-05
416	3.56E-05	483	2.18E-04	550	6.66E-04	617	7.90E-04	684	1.83E-04	751	2.33E-05
417	3.96E-05	484	2.22E-04	551	6.69E-04	618	7.79E-04	685	1.78E-04	752	2.24E-05
418	4.40E-05	485	2.22E-04	552	6.71E-04	619	7.72E-04	686	1.73E-04	753	2.20E-05
419	4.76E-05	486	2.25E-04	553	6.75E-04	620	7.67E-04	687	1.67E-04	754	2.15E-05
420	5.40E-05	487	2.32E-04	554	6.78E-04	621	7.57E-04	688	1.62E-04	755	2.09E-05
421	6.16E-05	488	2.37E-04	555	6.80E-04	622	7.49E-04	689	1.58E-04	756	2.03E-05
422	6.66E-05	489	2.45E-04	556	6.86E-04	623	7.37E-04	690	1.54E-04	757	1.98E-05
423	7.36E-05	490	2.51E-04	557	6.91E-04	624	7.29E-04	691	1.48E-04	758	1.95E-05
424	8.30E-05	491	2.62E-04	558	6.92E-04	625	7.20E-04	692	1.44E-04	759	1.88E-05
425	9.15E-05	492	2.71E-04	559	6.98E-04	626	7.10E-04	693	1.40E-04	760	1.82E-05
426	1.02E-04	493	2.83E-04	560	6.99E-04	627	7.03E-04	694	1.36E-04	761	1.81E-05
427	1.14E-04	494	2.92E-04	561	7.03E-04	628	6.92E-04	695	1.32E-04	762	1.76E-05
428	1.27E-04	495	3.04E-04	562	7.10E-04	629	6.83E-04	696	1.29E-04	763	1.69E-05
429	1.42E-04	496	3.19E-04	563	7.11E-04	630	6.75E-04	697	1.23E-04	764	1.69E-05
430	1.57E-04	497	3.29E-04	564	7.20E-04	631	6.63E-04	698	1.20E-04	765	1.63E-05
431	1.78E-04	498	3.44E-04	565	7.20E-04	632	6.51E-04	699	1.16E-04	766	1.63E-05
432	1.94E-04	499	3.55E-04	566	7.28E-04	633	6.41E-04	700	1.13E-04	767	1.54E-05
433	2.15E-04	500	3.67E-04	567	7.35E-04	634	6.30E-04	701	1.09E-04	768	1.54E-05
434	2.39E-04	501	3.80E-04	568	7.38E-04	635	6.20E-04	702	1.06E-04	769	1.49E-05
435	2.64E-04	502	3.92E-04	569	7.44E-04	636	6.10E-04	703	1.03E-04	770	1.46E-05
436	2.93E-04	503	4.05E-04	570	7.50E-04	637	5.96E-04	704	9.93E-05	771	1.43E-05
437	3.19E-04	504	4.17E-04	571	7.55E-04	638	5.87E-04	705	9.64E-05	772	1.41E-05
438	3.56E-04	505	4.30E-04	572	7.60E-04	639	5.77E-04	706	9.36E-05	773	1.36E-05
439	3.97E-04	506	4.42E-04	573	7.63E-04	640	5.66E-04	707	9.04E-05	774	1.34E-05
440	4.48E-04	507	4.52E-04	574	7.70E-04	641	5.54E-04	708	8.72E-05	775	1.31E-05
441	4.93E-04	508	4.66E-04	575	7.72E-04	642	5.44E-04	709	8.44E-05	776	1.29E-05
442	5.53E-04	509	4.76E-04	576	7.80E-04	643	5.32E-04	710	8.20E-05	777	1.23E-05
443	6.17E-04	510	4.86E-04	577	7.86E-04	644	5.22E-04	711	8.00E-05	778	1.25E-05
444	6.95E-04	511	4.97E-04	578	7.91E-04	645	5.11E-04	712	7.75E-05	779	1.25E-05
445	7.65E-04	512	5.04E-04	579	7.96E-04	646	4.99E-04	713	7.50E-05	780	1.25E-05
446	8.21E-04	513	5.17E-04	580	8.01E-04	647	4.88E-04	714	7.25E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	BULLET20 @15W4000K	Sample ID	241216013-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	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

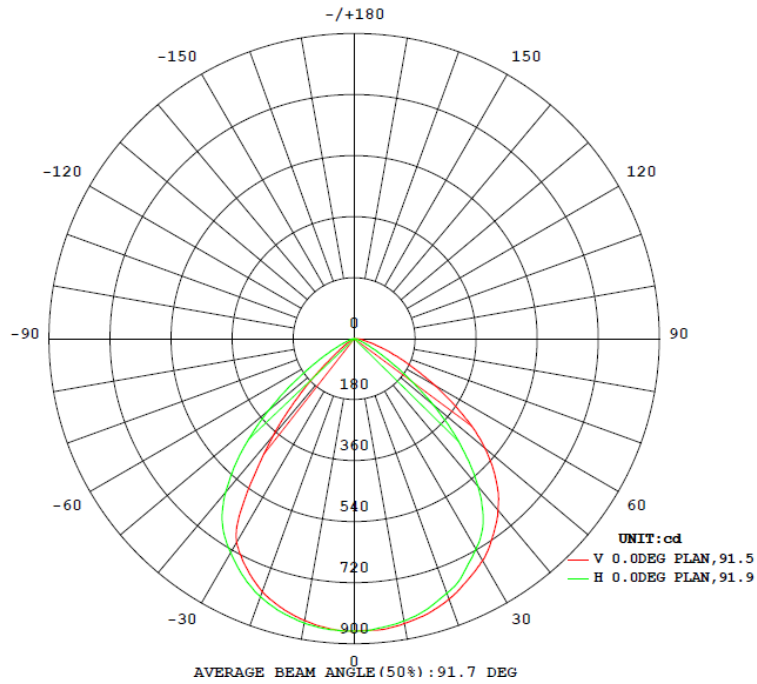
Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60	0.128	15.2	0.990
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

Test Result

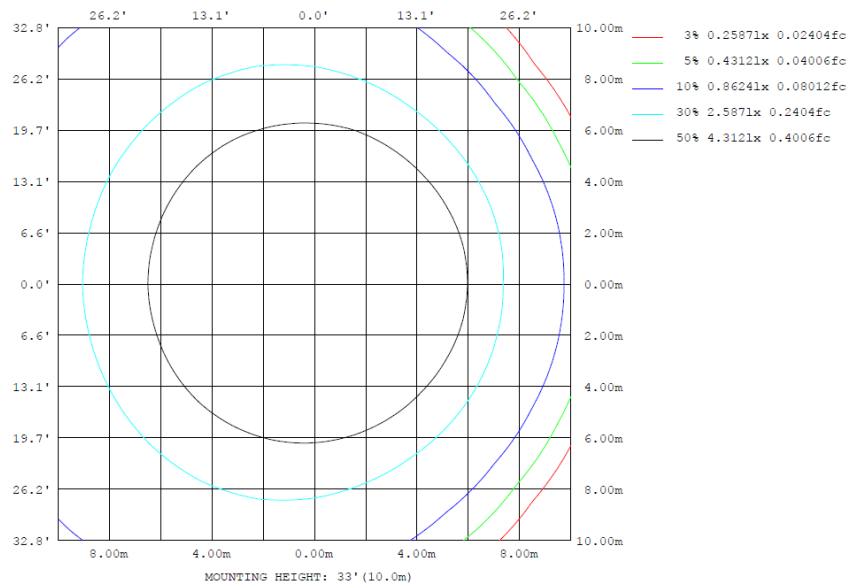
Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	NEMA Type
	C0-180	C90-270	C0-180	C90-270		(0°-90°)	
1688	123.7	123.9	91.3	91.3	111.0	100.0%	6H x 6V

4.2 Goniophotometer Test

Lighting Distribution Curve



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	844.0	844.7	845.2	853.3	852.9	855.2	851.5	849.8	0~ 10	81.75	81.75	4.84,4.84
20	794.1	792.8	799.0	816.2	817.8	818.3	810.2	799.7	10~ 20	234.7	316.4	18.7,18.7
30	694.9	689.4	717.4	750.7	756.3	761.6	729.4	702.1	20~ 30	354.8	671.2	39.8,39.8
40	371.7	414.1	568.5	648.6	659.8	655.5	589.8	424.1	30~ 40	401.2	1072	63.5,63.5
50	82.45	102.3	305.7	491.9	504.0	498.0	332.3	109.4	40~ 50	323.1	1396	82.7,82.7
60	16.69	23.16	86.15	255.6	272.0	261.8	102.6	27.09	50~ 60	186.9	1582	93.8,93.8
70	0.0160	0.5741	19.26	83.49	102.0	90.21	23.70	1.353	60~ 70	77.77	1660	98.4,98.4
80	0.0167	0.0170	3.219	17.96	27.73	21.76	4.391	0.0327	70~ 80	22.80	1683	99.7,99.7
90	0	0	0	0	0	0	0	0	80~ 90	4.609	1688	100,100
100	0	0	0	0	0	0	0	0	90~100	0	1688	100,100
110	0	0	0	0	0	0	0	0	100~110	0	1688	100,100
120	0	0	0	0	0	0	0	0	110~120	0	1688	100,100
130	0	0	0	0	0	0	0	0	120~130	0	1688	100,100
140	0	0	0	0	0	0	0	0	130~140	0	1688	100,100
150	0	0	0	0	0	0	0	0	140~150	0	1688	100,100
160	0	0	0	0	0	0	0	0	150~160	0	1688	100,100
170	0	0	0	0	0	0	0	0	160~170	0	1688	100,100
180	0	0	0	0	0	0	0	0	170~180	0	1688	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

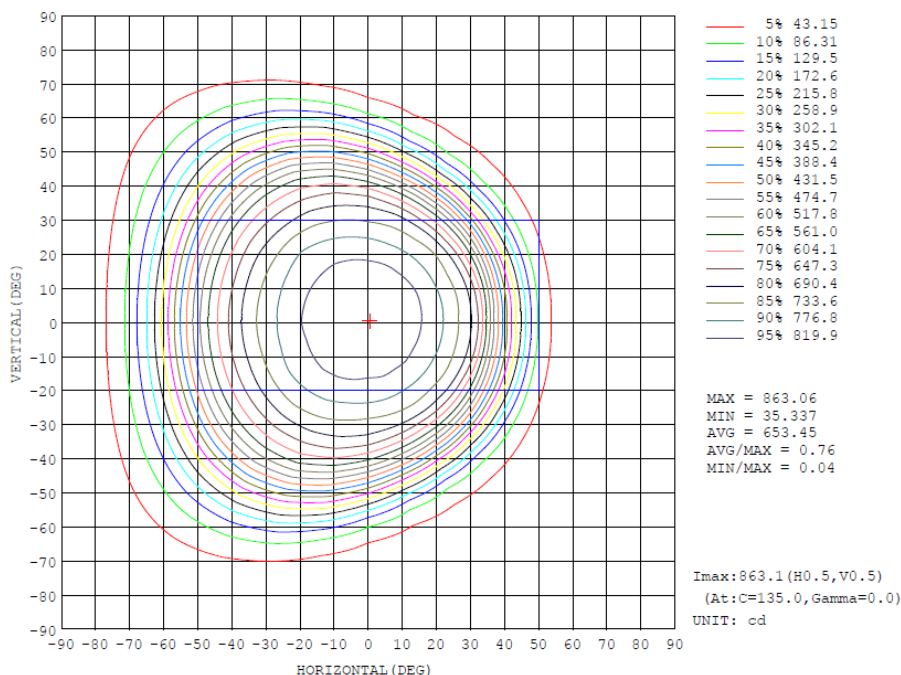
	Zonal (lm)		Total (lm)	Percent
0-10	81.75	0-10	81.75	4.84%
10-20	234.69	0-20	316.44	18.75%
20-30	354.79	0-30	671.23	39.77%
30-40	401.25	0-40	1072.48	63.55%
40-50	323.14	0-50	1395.62	82.69%
50-60	186.88	0-60	1582.50	93.77%
60-70	77.77	0-70	1660.27	98.38%
70-80	22.80	0-80	1683.07	99.73%
80-90	4.61	0-90	1687.68	100.00%
90-100	0.00	0-100	1687.68	100.00%
100-110	0.00	0-110	1687.68	100.00%
110-120	0.00	0-120	1687.68	100.00%
120-130	0.00	0-130	1687.68	100.00%
130-140	0.00	0-140	1687.68	100.00%
140-150	0.00	0-150	1687.68	100.00%
150-160	0.00	0-160	1687.68	100.00%
160-170	0.00	0-170	1687.68	100.00%
170-180	0.00	0-180	1687.68	100.00%

4.2 Goniophotometer Test

Area Flux Diagram

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm					Φ t	Φ a
	0.01	0.04	0.08	0.12	0.15	0.15	0.13	0.10	0.07	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00					
90	0.02	0.09	0.20	0.36	0.53	0.67	0.71	0.61	0.46	0.30	0.16	0.06	0.01	0.00	0.00	0.00	0.00	0.00	4.17	0.00					
80	0.02	0.13	0.37	0.81	1.45	2.16	2.68	2.64	2.08	1.34	0.75	0.37	0.12	0.01	0.00	0.00	0.00	0.00	15.0	6.32					
70	0.03	0.19	0.64	1.60	3.22	5.31	7.16	7.95	7.15	5.09	2.75	1.29	0.57	0.14	0.01	0.00	0.00	0.00	43.1	38.7					
60	0.03	0.26	1.00	2.74	5.80	9.67	13.1	15.0	14.9	12.7	8.51	4.05	1.48	0.52	0.07	0.00	0.00	0.00	89.7	86.8					
50	0.04	0.33	1.41	4.07	8.54	13.4	17.2	19.7	20.5	19.6	16.1	10.1	3.98	1.07	0.24	0.01	0.00	0.00	136	134					
40	0.04	0.40	1.81	5.34	10.7	15.7	19.6	22.4	23.5	23.1	21.0	16.1	8.06	2.18	0.43	0.03	0.00	0.00	170	169					
30	0.05	0.46	2.14	6.30	12.0	17.0	21.1	23.9	25.2	25.0	23.1	19.4	11.7	3.64	0.60	0.06	0.00	0.00	192	190					
-30	0.05	0.49	2.32	6.81	12.6	17.6	21.6	24.5	26.0	25.9	24.1	20.5	13.5	4.58	0.72	0.07	0.00	0.00	201	200					
	0.05	0.49	2.32	6.80	12.6	17.6	21.6	24.5	25.9	25.8	24.0	20.4	13.4	4.56	0.71	0.07	0.00	0.00	201	199					
	0.04	0.45	2.13	6.27	11.9	16.9	20.9	23.7	25.0	24.8	23.0	19.2	11.5	3.58	0.59	0.05	0.00	0.00	190	189					
	0.04	0.39	1.79	5.31	10.6	15.5	19.4	22.1	23.1	22.8	20.7	15.7	7.95	2.10	0.41	0.03	0.00	0.00	168	166					
	0.04	0.32	1.38	4.04	8.50	13.2	16.9	19.3	20.1	19.0	15.6	9.74	3.81	1.02	0.22	0.01	0.00	0.00	133	131					
	0.03	0.24	0.96	2.69	5.73	9.52	12.7	14.4	14.2	11.9	7.92	3.73	1.38	0.45	0.06	0.00	0.00	0.00	85.9	83.0					
	0.03	0.18	0.60	1.53	3.11	5.11	6.81	7.39	6.48	4.48	2.38	1.13	0.47	0.11	0.00	0.00	0.00	0.00	39.8	35.2					
	0.02	0.12	0.33	0.74	1.34	1.99	2.44	2.32	1.78	1.11	0.61	0.29	0.08	0.01	0.00	0.00	0.00	0.00	13.2	4.74					
	0.02	0.08	0.17	0.30	0.45	0.57	0.60	0.51	0.37	0.23	0.11	0.04	0.01	0.00	0.00	0.00	0.00	0.00	3.47	0.00					
	0.01	0.03	0.07	0.10	0.12	0.12	0.10	0.08	0.05	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00					
-90	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90						
Φ t	0.55	4.69	19.7	55.9	109	162	205	231	237	223	191	142	77.9	24.0	4.08	0.32	0.00	0.00	1688	---					
Φ a	0.00	0.33	15.5	52.2	106	159	202	228	234	220	187	138	74.0	19.1	0.00	0.00	0.00	0.00	---	1634					

Isocandela



4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	BULLET20 @15W4000K	Sample ID	241216013-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 $25 \pm 1^\circ\text{C}$. 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	0.128	15.2	0.990	14.05

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	2024-08-06	2025-08-05
NTC-F01-019	Temperature & Humidity Meter	2024-10-29	2025-10-28

*****End of Report*****