

Photometric Test Report

Relevant Standards

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

Prepared For

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Issue Date: 2025-02-21

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		2582
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	116.3
		105	120	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		22.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	13.48
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	3985±275	3930
		4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019 CIE13.3-1995	≥70		84.4
Minimum R9 (Integrating Sphere – Section 4.1)	ANSI/IES LM-79-2019 CIE13.3-1995	N/A		16
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		0.187
(Goniophotometer – Section 4.2)		Non-Worst Case		N/A
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		22.2
(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	Goniophotometer Test	-	BULLET2X20 @20W4000K	ES 1st ES #3-4	241216023-S1
2	THD and PF Test	-	BULLET2X20 @20W4000K	ES 1st ES #3-4	241216023-S1

Remark (If any):

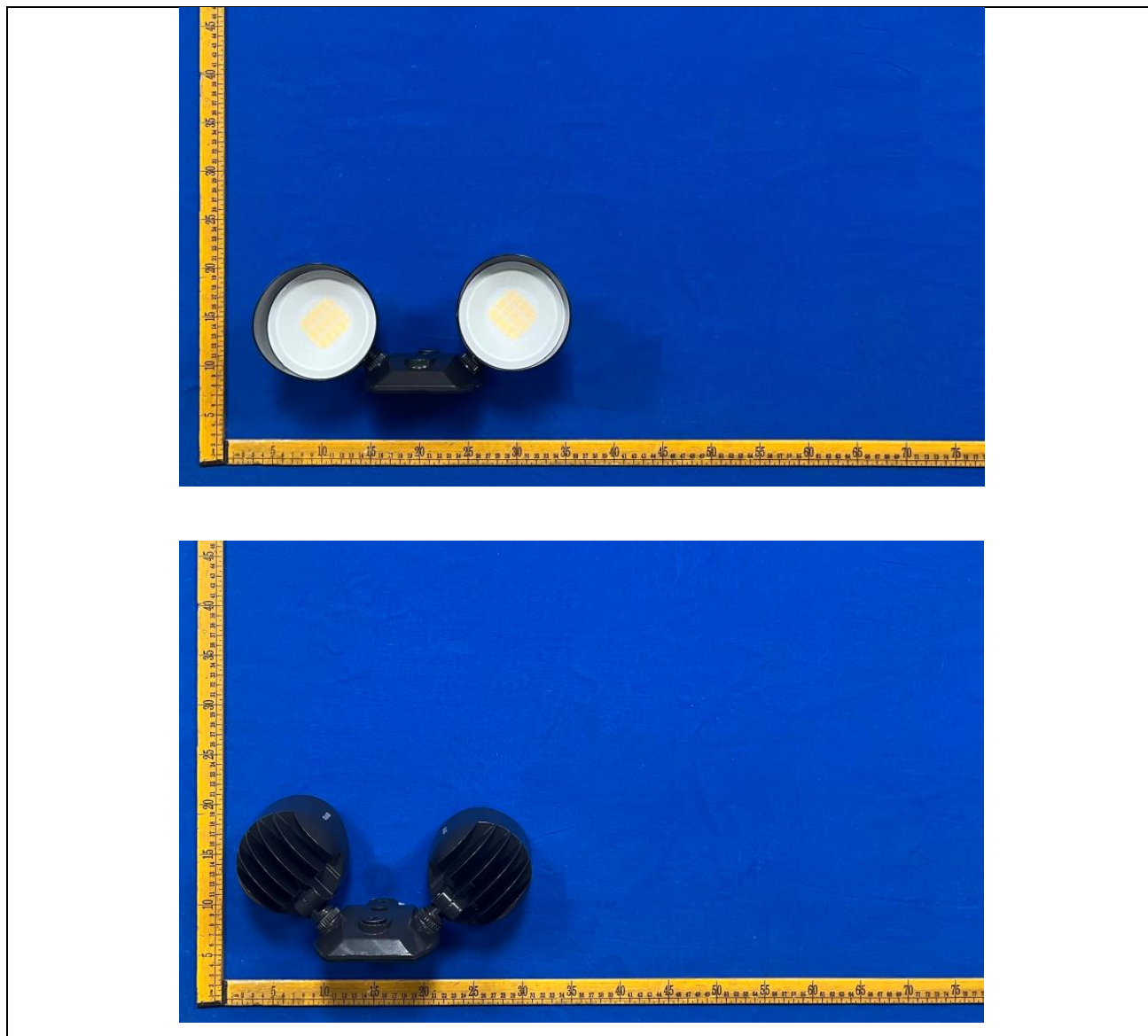
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.
4. The test result is based BULLET2X20 @20W3000K and BULLET2X12 @40W4000K.

4.0 Product Description

Luminaire Description: Model No. BULLET2X20 @20W4000K, 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 Goniophotometer Test

Model No.	BULLET2X20 @20W4000K	Sample ID	241216023-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	Humidity (%RH)	40.1

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

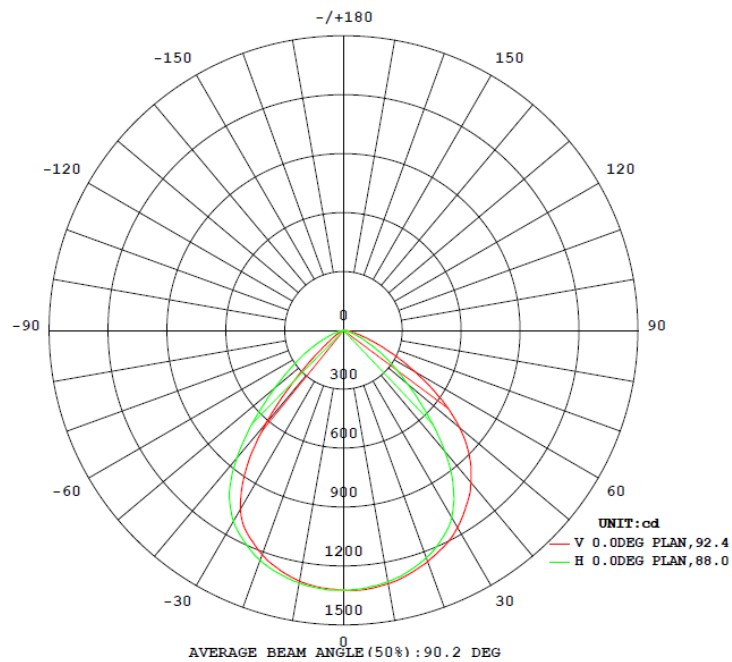
Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60.0	0.187	22.2	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

Test Result

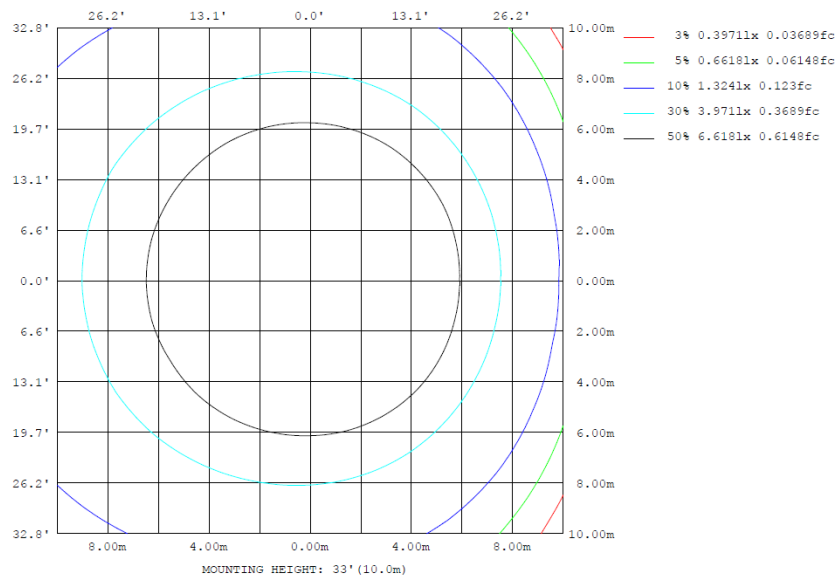
Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	NEMA Type
	C0-180	C90-270	C0-180	C90-270		(0°-90°)	
2582	124.0	129.0	92.2	88.5	116.3	100.0%	6H x 6V

4.1 Goniophotometer Test

Lighting Distribution Curve



Isolux Plot



4.1 Goniophotometer Test

Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	lum, lamp
10	1296	1294	1300	1303	1309	1307	1306	1300	0- 10	125.4	125.4	4.86, 4.86
20	1215	1219	1232	1243	1253	1245	1246	1226	10- 20	359.7	485.1	18.8, 18.8
30	1053	1080	1102	1132	1160	1142	1123	1093	20- 30	543.7	1029	39.8, 39.8
40	612.7	697.2	803.9	944.3	1010	975.9	845.7	735.4	30- 40	615.4	1644	63.7, 63.7
50	148.7	274.2	428.7	622.8	773.5	666.1	460.6	304.3	40- 50	492.5	2137	82.8, 82.8
60	36.16	70.99	196.0	271.9	418.2	302.2	214.3	85.29	50- 60	284.0	2421	93.8, 93.8
70	1.435	13.84	60.39	91.42	146.8	102.7	69.18	17.18	60- 70	120.2	2541	98.4, 98.4
80	0.0529	2.450	5.643	15.41	34.71	19.93	12.75	3.319	70- 80	35.50	2576	99.8, 99.8
90	0	0	0	0	0	0	0	0	80- 90	5.620	2582	100, 100
100	0	0	0	0	0	0	0	0	90-100	0	2582	100, 100
110	0	0	0	0	0	0	0	0	100-110	0	2582	100, 100
120	0	0	0	0	0	0	0	0	110-120	0	2582	100, 100
130	0	0	0	0	0	0	0	0	120-130	0	2582	100, 100
140	0	0	0	0	0	0	0	0	130-140	0	2582	100, 100
150	0	0	0	0	0	0	0	0	140-150	0	2582	100, 100
160	0	0	0	0	0	0	0	0	150-160	0	2582	100, 100
170	0	0	0	0	0	0	0	0	160-170	0	2582	100, 100
180	0	0	0	0	0	0	0	0	170-180	0	2582	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

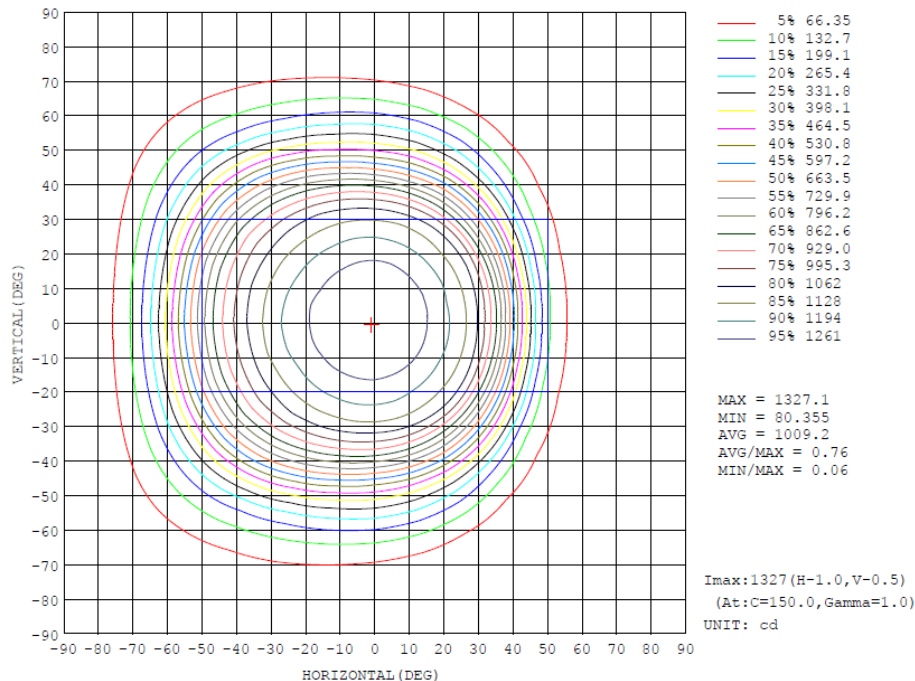
Zonal (lm)		Total (lm)		Percent
0-10	125.41	0-10	125.41	4.86%
10-20	359.74	0-20	485.15	18.79%
20-30	543.69	0-30	1028.84	39.85%
30-40	615.36	0-40	1644.20	63.68%
40-50	492.51	0-50	2136.71	82.75%
50-60	284.00	0-60	2420.71	93.75%
60-70	120.17	0-70	2540.88	98.41%
70-80	35.50	0-80	2576.38	99.78%
80-90	5.62	0-90	2582.00	100.00%
90-100	0.00	0-100	2582.00	100.00%
100-110	0.00	0-110	2582.00	100.00%
110-120	0.00	0-120	2582.00	100.00%
120-130	0.00	0-130	2582.00	100.00%
130-140	0.00	0-140	2582.00	100.00%
140-150	0.00	0-150	2582.00	100.00%
150-160	0.00	0-160	2582.00	100.00%
160-170	0.00	0-170	2582.00	100.00%
170-180	0.00	0-180	2582.00	100.00%

4.1 Goniophotometer Test

Area Flux Diagram

		AREA FLUX DIAGRAM																			UNIT:lm			Φ t	Φ a
		0.01	0.04	0.07	0.09	0.11	0.15	0.21	0.25	0.15	0.07	0.04	0.05	0.04	0.02	0.01	0.00	0.00	0.00	1.30	0.00				
VERTICAL (DEG)	90	0.02	0.09	0.19	0.34	0.55	0.86	1.12	1.25	1.22	1.02	0.71	0.41	0.20	0.08	0.02	0.00	0.00	0.00	8.09	0.00				
	80	0.02	0.14	0.41	0.92	1.69	2.58	3.40	3.99	4.14	3.70	2.73	1.55	0.69	0.25	0.07	0.01	0.00	0.00	26.3	10.3				
	70	0.02	0.09	0.19	0.34	0.55	0.86	1.12	1.25	1.22	1.02	0.71	0.41	0.20	0.08	0.02	0.00	0.00	0.00	8.09	0.00				
	60	0.02	0.14	0.41	0.92	1.69	2.58	3.40	3.99	4.14	3.70	2.73	1.55	0.69	0.25	0.07	0.01	0.00	0.00	26.3	10.3				
	50	0.03	0.22	0.78	1.98	3.82	6.03	8.10	9.56	10.1	9.35	7.38	4.58	2.01	0.63	0.16	0.03	0.00	0.00	64.7	58.6				
	40	0.04	0.32	1.32	3.63	7.48	12.2	16.4	19.1	20.0	18.8	15.3	10.00	4.66	1.48	0.33	0.05	0.00	0.00	131	127				
	30	0.04	0.43	1.97	5.77	12.1	19.0	24.7	28.7	30.5	29.7	25.7	18.2	9.10	2.75	0.63	0.08	0.00	0.00	210	207				
	20	0.05	0.53	2.64	7.97	16.0	23.7	29.6	33.7	35.9	35.7	32.7	25.9	14.7	4.60	0.94	0.12	0.00	0.00	265	262				
	10	0.05	0.62	3.17	9.60	18.4	26.0	32.0	36.3	38.6	38.4	35.6	30.0	19.1	6.49	1.23	0.17	0.00	0.00	296	294				
	0	0.06	0.67	3.49	10.4	19.3	27.0	33.2	37.5	39.8	39.7	36.9	31.4	21.3	7.66	1.39	0.19	0.00	0.00	310	308				
	-10	0.06	0.67	3.46	10.3	19.2	26.9	33.1	37.5	39.8	39.5	36.8	31.3	21.1	7.53	1.36	0.19	0.00	0.00	309	307				
	-20	0.05	0.61	3.10	9.35	18.0	25.7	31.8	36.1	38.4	38.1	35.3	29.7	18.5	6.17	1.17	0.16	0.00	0.00	292	290				
	-30	0.05	0.52	2.54	7.63	15.4	23.0	29.1	33.3	35.5	35.2	32.2	25.0	13.8	4.22	0.87	0.10	0.00	0.00	259	256				
	-40	0.04	0.41	1.87	5.43	11.4	18.0	23.7	27.6	29.4	28.6	24.5	17.1	8.35	2.43	0.55	0.06	0.00	0.00	199	197				
	-50	0.04	0.31	1.23	3.34	6.87	11.2	15.1	17.8	18.8	17.6	14.2	9.10	4.10	1.26	0.27	0.03	0.00	0.00	121	117				
	-60	0.03	0.21	0.73	1.79	3.45	5.45	7.40	8.84	9.36	8.65	6.71	4.04	1.69	0.51	0.13	0.02	0.00	0.00	59.0	52.3				
	-70	0.02	0.14	0.38	0.81	1.47	2.29	3.07	3.61	3.72	3.29	2.38	1.30	0.55	0.19	0.05	0.01	0.00	0.00	23.3	7.06				
	-80	0.02	0.08	0.18	0.29	0.43	0.68	0.94	1.08	1.02	0.82	0.54	0.30	0.15	0.06	0.02	0.00	0.00	0.00	6.62	0.00				
	-90	0.01	0.04	0.07	0.09	0.09	0.11	0.14	0.17	0.10	0.03	0.02	0.03	0.03	0.01	0.00	0.00	0.00	0.00	0.94	0.00				
			-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90						
Φ t	0.62	6.03	27.6	79.8	156	231	293	337	356	348	310	240	140	46.3	9.21	1.24	0.04	0.00	2582	---					
Φ a	0.00	0.25	21.2	74.3	150	225	287	331	351	343	304	234	134	38.0	0.45	0.00	0.00	0.00	---	2493					

Isocandela



4.1 Goniophotometer Test

Luminous Distribution Intensity Data

H (DEG)		UNIT: cd																	
V (DEG)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	15	-10	-5	0
-180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-80	0.00	4.61	6.44	7.77	8.62	9.16	9.36	9.09	8.60	7.97	8.83	9.76	10.8	12.8	14.7	16.2	13.1	9.45	5.64
-70	0.00	6.56	9.82	13.33	16.4	19.7	23.4	27.4	32.0	37.4	44.6	52.1	58.4	62.8	65.5	66.8	66.3	64.0	60.4
-60	0.00	8.13	13.7	20.4	28.8	40.0	53.1	68.1	86.6	105	123	142	159	173	186	196	201	201	196
-50	0.00	9.75	17.8	29.6	47.9	71.2	102	138	181	226	270	315	357	387	416	432	440	444	429
-40	0.00	11.4	22.3	41.4	70.9	114	171	242	327	420	509	592	662	717	760	792	810	815	804
-30	0.00	12.7	26.7	52.7	96.3	162	255	368	497	629	747	842	914	981	1028	1065	1088	1101	1102
-20	0.00	13.8	30.6	63.5	121	209	333	486	646	789	903	993	1060	1114	1159	1193	1217	1232	1232
-10	0.00	14.5	33.4	71.4	139	244	391	564	736	876	982	1063	1133	1186	1228	1260	1283	1299	1300
0	0.00	14.8	34.7	74.9	147	261	418	602	774	907	1010	1090	1160	1213	1253	1285	1309	1323	1323
10	0.00	14.6	36.3	72.1	140	248	397	574	749	886	990	1073	1139	1190	1232	1263	1289	1305	1306
20	0.00	13.9	31.0	64.7	124	215	344	503	671	812	923	1010	1074	1127	1167	1200	1227	1241	1246
30	0.00	12.8	27.1	54.2	99.0	170	268	388	525	664	783	875	950	1012	1058	1090	1111	1123	1123
40	0.00	11.5	22.7	42.4	74.4	121	183	260	353	452	549	636	706	762	807	836	854	858	846
50	0.00	9.80	18.1	30.9	50.7	76.6	111	152	199	248	298	348	392	424	452	468	474	474	461
60	0.00	8.17	14.0	21.0	30.4	43.0	58.4	77.0	97.4	119	137	157	175	189	203	213	218	219	214
70	0.00	6.57	9.99	13.8	17.2	21.1	25.7	31.3	38.1	45.3	53.3	60.7	66.6	70.9	73.8	75.2	74.9	72.8	69.2
80	0.00	4.54	6.47	7.90	8.83	9.39	9.51	10.1	10.5	11.0	11.3	11.5	11.7	11.8	11.9	12.0	12.0	11.8	11.5
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

H (DBG)		UNIT: od																	
V (DBG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
-180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
-80	4.66	3.56	2.40	2.53	2.71	3.01	2.36	1.77	1.24	0.79	0.44	0.19	0.12	0.08	0.07	0.07	0.06	0.00	
-70	54.6	47.9	40.2	31.1	22.7	16.0	11.4	7.62	4.99	3.07	1.59	0.69	0.32	0.13	0.06	0.06	0.07	0.00	
-60	192	164	140	111	81.6	56.1	36.2	21.3	13.5	8.22	4.44	2.07	0.84	0.25	0.07	0.06	0.07	0.00	
-50	408	376	332	279	222	160	103	61.5	35.6	18.5	9.39	4.43	1.63	0.42	0.12	0.06	0.06	0.00	
-40	777	730	662	575	465	344	228	138	77.0	41.1	20.4	8.21	2.64	0.67	0.18	0.06	0.06	0.00	
-30	1091	1060	1003	905	775	620	442	263	136	72.7	38.1	15.6	4.44	1.03	0.24	0.07	0.06	0.00	
-20	1224	1197	1161	1113	1030	864	659	432	225	102	54.3	25.7	7.42	1.41	0.26	0.07	0.06	0.00	
-10	1289	1269	1238	1185	1125	1013	815	560	307	137	67.0	33.6	10.3	1.62	0.23	0.06	0.06	0.00	
0	1315	1296	1262	1215	1150	1053	871	613	337	149	60.9	36.2	11.2	1.43	0.15	0.05	0.06	0.00	
10	1299	1277	1243	1194	1129	1027	834	578	317	144	68.9	34.5	11.2	1.90	0.30	0.08	0.06	0.00	
20	1235	1211	1172	1120	1051	896	692	456	240	111	56.9	27.6	8.78	1.87	0.37	0.10	0.06	0.00	
30	1112	1083	1037	947	815	660	474	289	153	80.4	41.8	18.4	5.71	1.53	0.36	0.10	0.06	0.00	
40	818	768	701	617	504	377	254	158	89.1	46.9	24.0	10.5	3.70	1.04	0.30	0.09	0.07	0.00	
50	442	410	363	306	246	182	122	73.8	42.5	22.8	12.1	5.79	2.32	0.66	0.21	0.08	0.07	0.00	
60	200	182	157	127	96.4	67.9	44.3	26.7	16.8	10.4	5.72	2.88	1.26	0.43	0.13	0.08	0.08	0.00	
70	62.9	55.6	47.3	37.5	28.2	20.3	14.6	9.79	6.32	4.05	2.28	1.09	0.51	0.21	0.09	0.08	0.08	0.00	
80	9.98	7.04	4.29	4.24	3.43	2.58	1.68	1.02	1.19	0.67	0.29	0.19	0.13	0.11	0.10	0.08	0.08	0.00	
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

4.0 LM-79 Measurement and Test Results

4.2 THD and PF Test

Model No.	BULLET2X20 @20W4000K	Sample ID	241216023-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	0.187	22.2	0.991	13.48

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*****