

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		2187
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	115.1
		105	120	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		19.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	14.40
Power Factor (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.989
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019	7 steps	3985±275	3928
		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		0.160
(Goniophotometer – Section 4.2)		Non-Worst Case		N/A
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		19.0
(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	-	BULLET2X12 @18W4000K	ES 1st ES#3-3	241216022-S1
2	THD and PF Test	-	BULLET2X12 @18W4000K	ES 1st ES#3-3	241216022-S1

Remark (If any):

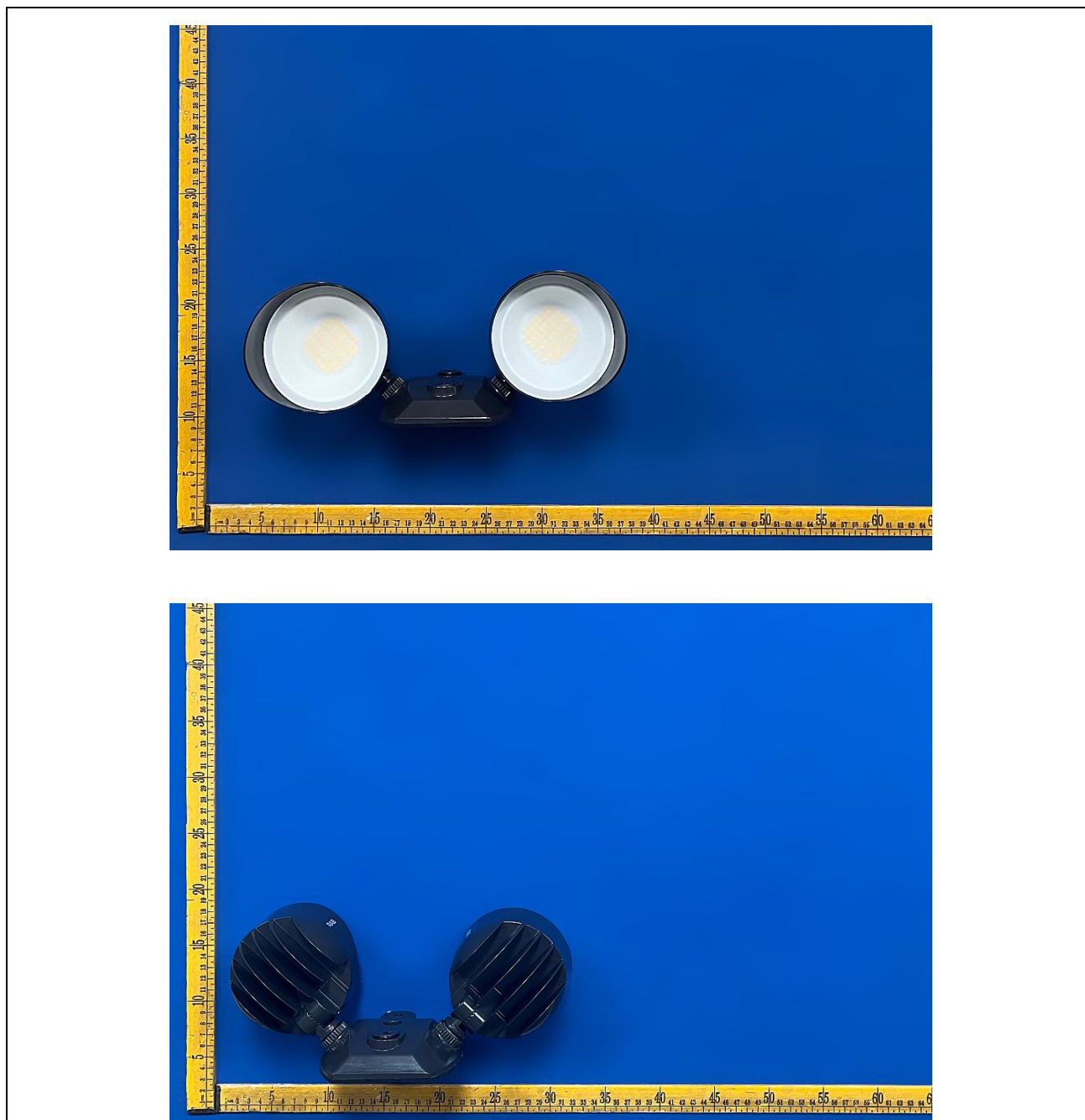
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.
4. The test result is based BULLET2X12 @18W3000K and BULLET2X12 @24W4000K.

4.0 Product Description

Luminaire Description: Model No. BULLET2X12 @18W4000K, 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.	BULLET2X12 @18W4000K	Sample ID	241216022-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	Humidity (%RH)	41.1

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

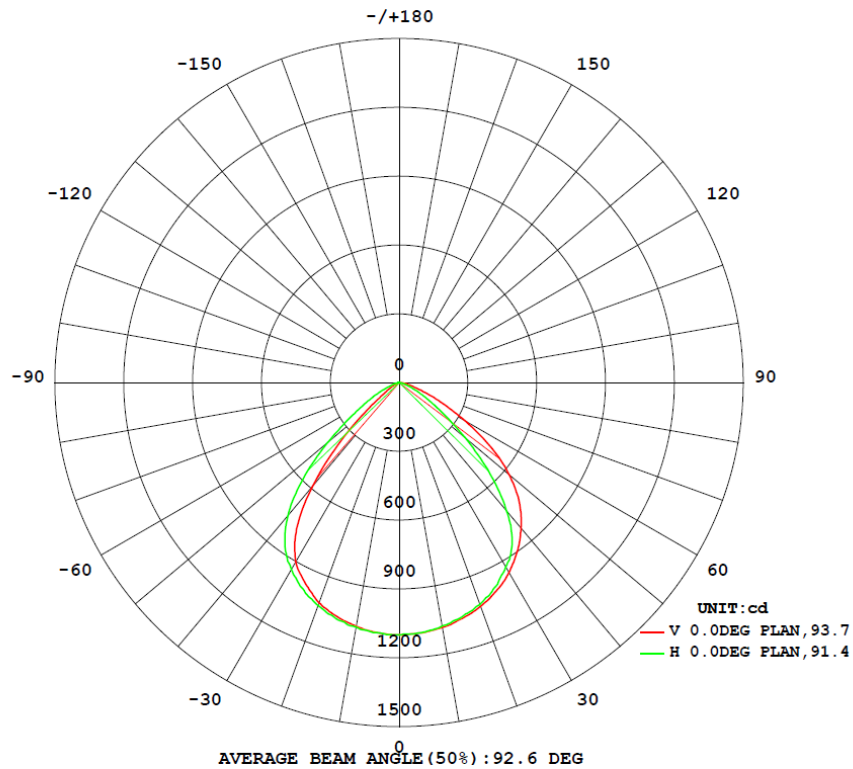
Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60	0.160	19.0	0.989
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

Test Result

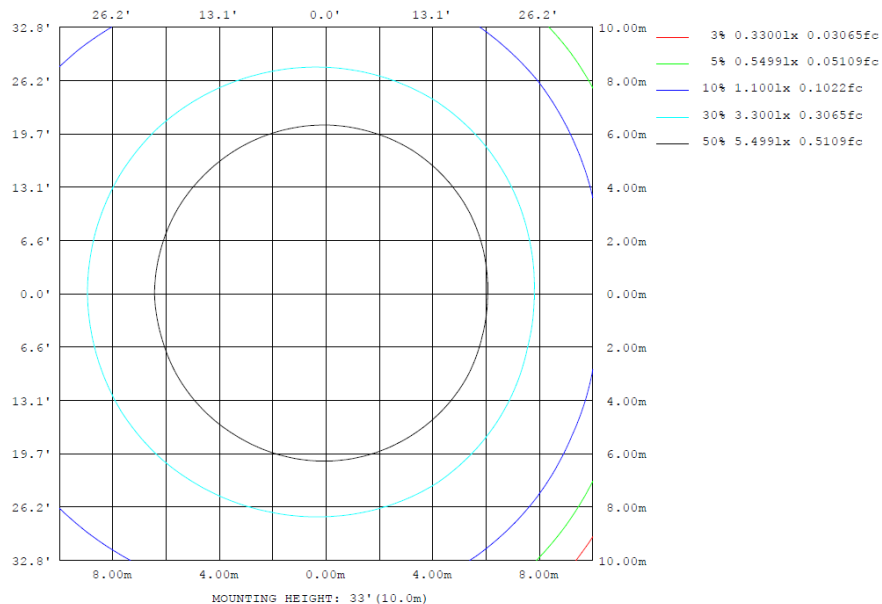
Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement (0°-90°)	NEMA Type
	C0-180	C90-270	C0-180	C90-270			
2187	124.6	126.4	93.3	91.2	115.1	100.0%	6H x 6V

4.1 Goniophotometer Test

Lighting Distribution Curve



Isolux Plot



4.1 Goniophotometer Test

Zonal Lumen Summary

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	%lum, lamp
10	1079	1080	1077	1082	1084	1085	1082	1082	0- 10	104.0	104.0	4.76, 4.76
20	1021	1022	1029	1025	1038	1035	1035	1028	10- 20	299.2	403.2	18.4, 18.4
30	903.0	913.7	929.1	943.5	956.5	946.5	940.1	923.6	20- 30	454.3	857.5	39.2, 39.2
40	586.6	664.3	727.9	799.8	827.0	815.8	755.1	685.4	30- 40	529.8	1387	63.4, 63.4
50	171.3	276.7	377.4	520.7	627.0	569.8	409.5	313.6	40- 50	442.0	1829	83.6, 83.6
60	40.29	67.00	140.0	215.9	328.7	249.2	150.0	81.65	50- 60	239.0	2068	94.6, 94.6
70	2.386	11.77	39.06	65.13	106.0	70.19	42.03	13.66	60- 70	91.35	2160	98.8, 98.8
80	0.0483	1.851	7.851	10.88	23.87	10.97	8.657	2.311	70- 80	23.78	2183	99.8, 99.8
90	0	0	0	0	0	0	0	0	80- 90	3.535	2187	100, 100
100	0	0	0	0	0	0	0	0	90-100	0	2187	100, 100
110	0	0	0	0	0	0	0	0	100-110	0	2187	100, 100
120	0	0	0	0	0	0	0	0	110-120	0	2187	100, 100
130	0	0	0	0	0	0	0	0	120-130	0	2187	100, 100
140	0	0	0	0	0	0	0	0	130-140	0	2187	100, 100
150	0	0	0	0	0	0	0	0	140-150	0	2187	100, 100
160	0	0	0	0	0	0	0	0	150-160	0	2187	100, 100
170	0	0	0	0	0	0	0	0	160-170	0	2187	100, 100
180	0	0	0	0	0	0	0	0	170-180	0	2187	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

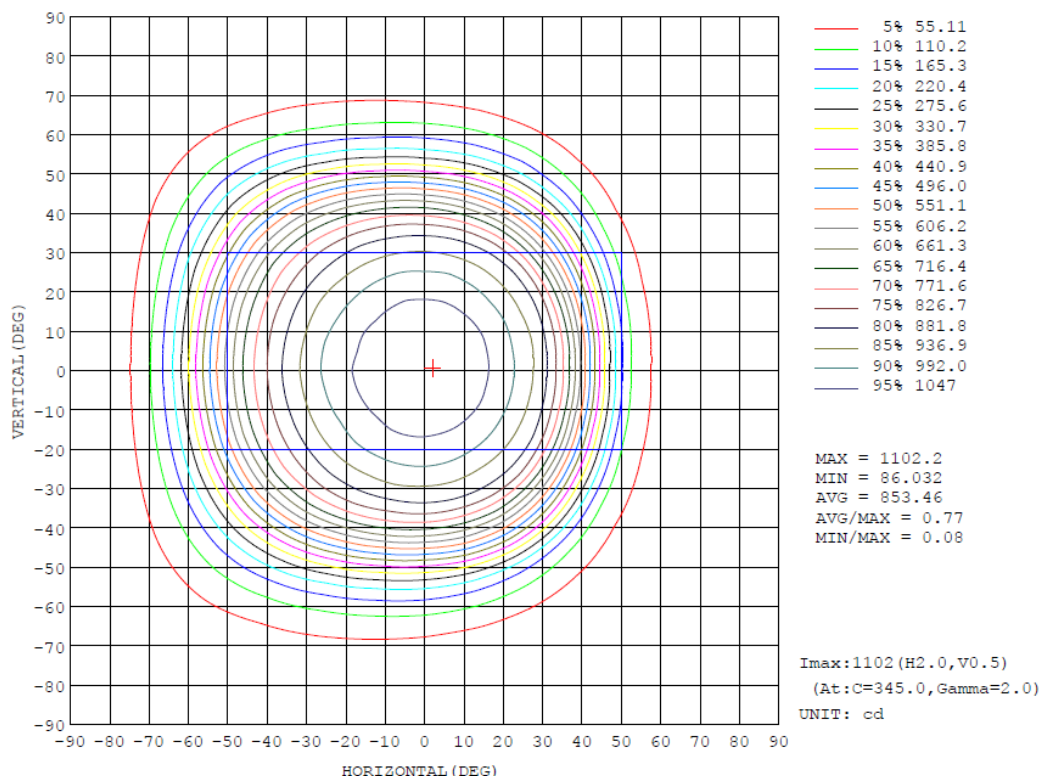
	Zonal (lm)		Total (lm)	Percent
0-10	104.04	0-10	104.04	4.76%
10-20	299.17	0-20	403.21	18.44%
20-30	454.31	0-30	857.52	39.21%
30-40	529.79	0-40	1387.31	63.43%
40-50	442.00	0-50	1829.31	83.64%
50-60	239.04	0-60	2068.35	94.57%
60-70	91.35	0-70	2159.70	98.75%
70-80	23.78	0-80	2183.48	99.84%
80-90	3.53	0-90	2187.01	100.00%
90-100	0.00	0-100	2187.01	100.00%
100-110	0.00	0-110	2187.01	100.00%
110-120	0.00	0-120	2187.01	100.00%
120-130	0.00	0-130	2187.01	100.00%
130-140	0.00	0-140	2187.01	100.00%
140-150	0.00	0-150	2187.01	100.00%
150-160	0.00	0-160	2187.01	100.00%
160-170	0.00	0-170	2187.01	100.00%
170-180	0.00	0-180	2187.01	100.00%

4.1 Goniophotometer Test

Area Flux Diagram

		AREA FLUX DIAGRAM																UNIT:lm		Φ t	Φ a
VERTICAL (DEG)	90	0.00	0.02	0.04	0.06	0.06	0.07	0.08	0.10	0.08	0.05	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.67	0.00
	80	0.01	0.05	0.12	0.21	0.31	0.46	0.62	0.70	0.70	0.60	0.44	0.27	0.14	0.06	0.02	0.00	0.00	0.00	4.70	0.00
	70	0.01	0.09	0.28	0.61	1.10	1.73	2.28	2.65	2.76	2.52	1.94	1.17	0.54	0.19	0.06	0.01	0.00	0.00	17.9	4.24
	60	0.02	0.15	0.54	1.43	2.94	4.79	6.48	7.66	8.06	7.49	5.97	3.83	1.80	0.60	0.14	0.03	0.00	0.00	51.9	46.4
	50	0.02	0.22	0.95	2.84	6.18	10.3	14.2	16.9	18.0	17.2	14.3	9.55	4.55	1.48	0.34	0.05	0.00	0.00	117	114
	40	0.03	0.30	1.46	4.65	10.1	16.0	20.9	24.4	26.1	25.7	23.0	17.2	9.33	2.97	0.67	0.09	0.00	0.00	183	181
	30	0.03	0.37	2.00	6.45	13.1	19.5	24.5	28.1	30.0	29.8	27.6	22.9	14.2	5.11	1.03	0.15	0.01	0.00	225	223
	20	0.04	0.44	2.43	7.76	15.0	21.4	26.5	30.1	32.0	32.0	29.8	25.5	17.6	7.03	1.36	0.20	0.01	0.00	249	247
	10	0.04	0.48	2.67	8.41	15.8	22.2	27.4	31.1	33.0	33.0	30.8	26.5	19.1	8.02	1.54	0.23	0.01	0.00	260	259
	0	0.04	0.47	2.63	8.32	15.7	22.1	27.4	31.0	33.0	32.9	30.8	26.4	18.9	7.86	1.50	0.23	0.01	0.00	259	257
	-10	0.04	0.43	2.33	7.47	14.8	21.2	26.3	29.9	31.9	31.8	29.6	25.3	17.2	6.59	1.27	0.20	0.01	0.00	246	244
	-20	0.03	0.37	1.87	5.99	12.6	19.2	24.3	27.8	29.7	29.5	27.3	22.5	13.5	4.57	0.95	0.14	0.00	0.00	220	218
	-30	0.03	0.29	1.35	4.17	9.20	15.1	20.2	23.8	25.6	25.3	22.5	16.5	8.47	2.52	0.62	0.07	0.00	0.00	176	173
	-40	0.02	0.21	0.89	2.51	5.40	9.16	12.9	15.7	17.0	16.4	13.5	8.65	3.81	1.26	0.31	0.04	0.00	0.00	108	104
	-50	0.02	0.14	0.52	1.32	2.60	4.21	5.78	6.95	7.41	6.88	5.30	3.21	1.49	0.51	0.12	0.02	0.00	0.00	46.5	40.1
	-60	0.02	0.09	0.27	0.58	1.03	1.61	2.15	2.51	2.59	2.30	1.69	0.98	0.45	0.16	0.05	0.01	0.00	0.00	16.5	2.84
	-70	0.01	0.06	0.12	0.21	0.30	0.44	0.59	0.67	0.66	0.55	0.38	0.23	0.12	0.05	0.01	0.00	0.00	0.00	4.39	0.00
	-80	0.00	0.02	0.05	0.06	0.06	0.07	0.09	0.11	0.07	0.04	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.65	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	0.00
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	
Φ t		0.41	4.21	20.5	63.1	126	190	243	280	298	294	265	211	131	49.0	10.00	1.47	0.05	0.00	2187	---
Φ a		0.00	0.00	14.7	58.5	122	185	238	275	294	290	260	206	126	43.0	1.97	0.00	0.00	0.00	---	2115

Isocandela



4.1 Goniophotometer Test

Luminous Distribution Intensity Data

H (DEG) 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	2.83	3.99	5.00	5.72	6.22	6.60	6.84	6.34	6.11	6.33	6.64	6.98	7.97	8.87	9.62	9.13	8.55	7.85
-70	0.00	4.15	6.44	8.82	11.2	13.7	16.5	19.5	22.3	24.7	29.0	34.0	38.2	41.1	43.1	43.9	43.4	41.7	39.1
-60	0.00	5.26	8.98	13.9	20.0	27.9	37.9	50.2	62.8	76.3	89.6	104	116	126	135	140	143	144	140
-50	0.00	6.34	12.0	20.4	33.2	51.3	74.0	103	137	174	213	252	289	319	347	366	378	384	377
-40	0.00	7.34	15.3	28.4	50.2	81.7	125	183	254	333	414	491	560	616	662	697	720	731	728
-30	0.00	8.22	18.3	36.9	69.0	118	190	284	397	514	621	707	775	829	869	896	916	928	929
-20	0.00	8.90	21.0	44.7	86.0	154	254	384	524	649	747	820	878	925	964	993	1012	1024	1029
-10	0.00	9.35	23.0	50.5	99.5	183	304	453	599	718	805	876	931	979	1015	1042	1062	1077	1077
0	0.00	9.54	23.9	53.1	106	197	329	485	627	741	827	897	956	1002	1038	1063	1084	1096	1100
10	0.00	9.34	23.1	51.0	101	188	313	464	608	722	812	880	938	985	1019	1047	1067	1080	1082
20	0.00	8.87	21.2	45.4	88.5	164	271	407	548	656	757	829	887	933	968	999	1020	1033	1035
30	0.00	8.15	18.6	37.7	71.3	126	209	314	432	549	649	730	792	842	880	907	926	937	940
40	0.00	7.25	15.5	29.0	52.4	87.3	138	206	290	377	461	540	605	656	698	729	749	758	755
50	0.00	6.24	11.9	20.8	34.7	53.7	79.3	114	156	201	245	290	329	362	390	407	417	420	420
60	0.00	5.18	8.81	14.0	20.6	29.0	39.9	52.9	67.5	83.4	98.9	114	127	135	146	150	154	154	150
70	0.00	4.11	6.19	8.56	11.0	14.0	17.7	20.5	23.6	26.2	30.9	36.1	40.3	43.1	45.2	46.1	45.9	44.5	42.6
80	0.00	2.83	3.91	4.71	5.35	5.84	6.16	6.25	6.08	5.67	5.97	6.30	6.69	7.76	8.76	9.50	9.30	9.04	8.68
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 (DEG) V (DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	UNIT: cd
-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	6.39	4.77	3.07	2.58	2.31	2.33	1.81	1.32	0.89	0.56	0.31	0.14	0.08	0.05	0.04	0.05	0.04	0.05	0.00
-70	35.2	30.8	25.8	20.6	15.8	11.7	8.67	6.00	3.93	2.45	1.31	0.59	0.27	0.11	0.04	0.04	0.04	0.05	0.00
-60	131	119	103	83.8	65.3	47.2	31.5	19.6	12.1	7.29	3.92	1.87	0.76	0.24	0.07	0.04	0.04	0.04	0.00
-50	363	336	293	240	184	132	91.1	59.7	36.5	20.4	9.90	4.39	1.55	0.41	0.13	0.05	0.04	0.00	0.00
-40	712	680	630	558	460	346	228	132	76.4	44.3	24.1	9.97	2.83	0.70	0.20	0.06	0.04	0.00	0.00
-30	923	907	878	824	730	600	444	282	147	75.1	42.3	19.7	6.20	1.23	0.26	0.06	0.04	0.00	0.00
-20	1020	1004	976	938	890	790	632	439	251	111	58.7	30.0	10.1	1.85	0.32	0.07	0.04	0.00	0.00
-10	1073	1060	1035	998	945	877	743	547	334	156	70.9	38.4	13.9	2.39	0.34	0.06	0.04	0.00	0.00
0	1094	1079	1055	1021	967	903	781	587	362	171	74.2	40.3	14.9	2.39	0.30	0.05	0.04	0.00	0.00
10	1079	1066	1041	1005	952	886	757	563	348	167	74.2	38.5	14.4	2.67	0.44	0.08	0.04	0.00	0.00
20	1030	1013	987	948	899	805	653	467	274	127	61.4	33.1	11.0	2.38	0.47	0.10	0.04	0.00	0.00
30	932	917	890	839	748	625	477	315	174	86.0	45.2	21.1	6.84	1.85	0.42	0.10	0.05	0.00	0.00
40	798	764	652	582	490	382	264	161	91.0	49.5	25.9	11.2	3.93	1.21	0.33	0.09	0.05	0.00	0.00
50	339	303	322	271	217	161	112	71.5	42.2	23.0	11.1	5.35	2.28	0.71	0.23	0.08	0.05	0.00	0.00
60	143	133	117	97.8	77.5	56.4	37.8	23.5	14.4	8.39	4.85	2.55	1.15	0.42	0.14	0.07	0.05	0.00	0.00
70	38.7	34.6	29.7	24.3	19.0	14.0	10.1	7.01	4.67	3.08	1.82	0.93	0.45	0.20	0.09	0.06	0.06	0.00	0.00
80	6.93	5.06	3.23	2.98	2.85	2.90	2.27	1.71	1.21	0.80	0.47	0.23	0.15	0.10	0.08	0.07	0.05	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
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

4.0 LM-79 Measurement and Test Results

4.2 THD and PF Test

Model No.	BULLET2X12 @18W4000K	Sample ID	241216022-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	0.160	19.0	0.989	14.40

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*******