

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		1414
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	120.9
		105	120	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		11.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	13.28
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	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		0.098
(Goniophotometer – Section 4.2)		Non-Worst Case		N/A
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		11.7
(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 @12W4000K	ES 1st ES#3-3	241216022-S1
2	THD and PF Test	-	BULLET2X12 @12W4000K	ES 1st ES#3-3	241216022-S1

Remark (If any):

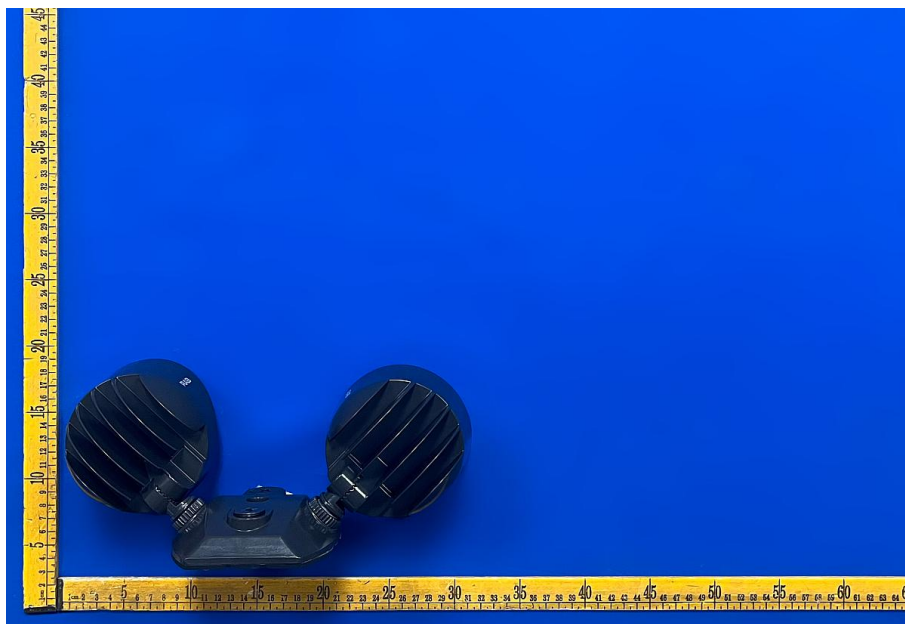
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.
4. The test result is based BULLET2X12 @12W3000K and BULLET2X12 @24W4000K.

4.0 Product Description

Luminaire Description: Model No. BULLET2X12 @12W4000K, 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 @12W4000K	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

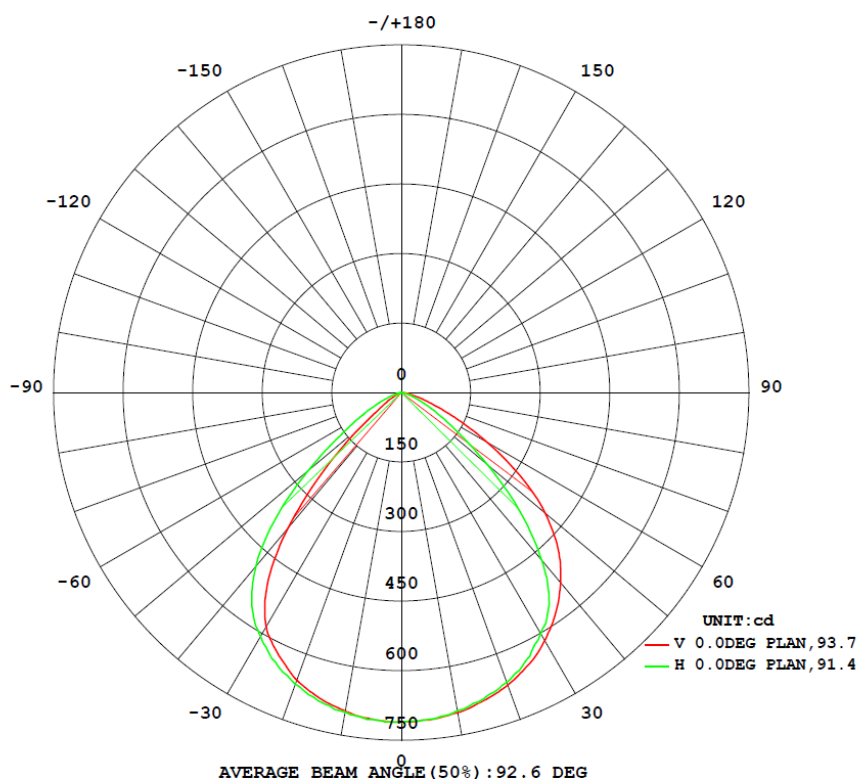
Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60	0.098	11.7	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

Test Result

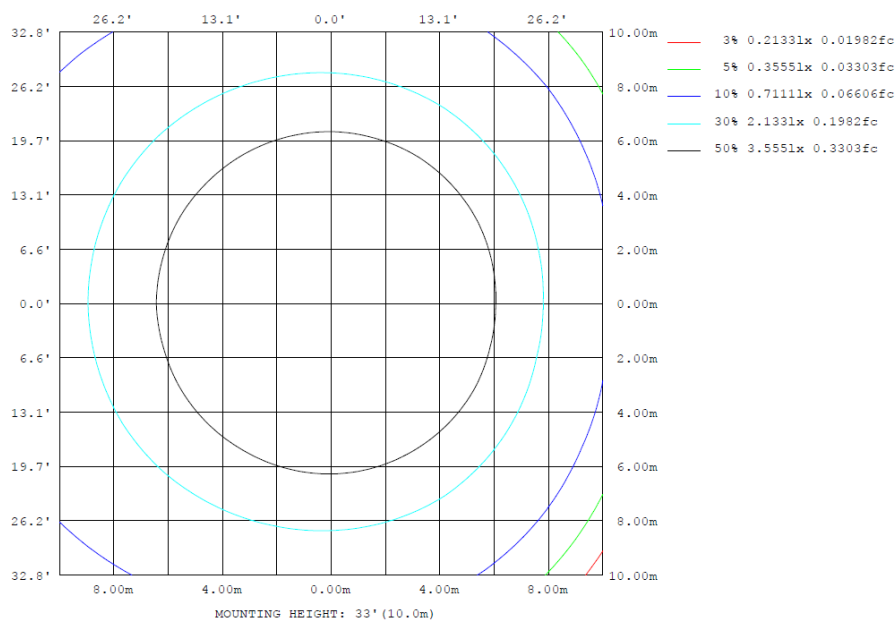
Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement (0°-90°)	NEMA Type
	C0-180	C90-270	C0-180	C90-270			
1414	124.6	126.4	93.3	91.2	120.9	100.0%	6H x 6V

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	697.3	698.2	696.4	699.4	700.6	701.3	699.8	699.3	0~ 10	67.27	67.27	4.76, 4.76
20	660.4	660.7	665.4	663.0	671.1	669.3	668.9	664.8	10~ 20	193.4	260.7	18.4, 18.4
30	583.8	590.8	600.7	610.0	618.4	612.0	607.8	597.1	20~ 30	293.7	554.4	39.2, 39.2
40	379.3	429.5	470.6	517.1	534.7	527.4	488.2	443.1	30~ 40	342.5	897.0	63.4, 63.4
50	110.8	178.9	244.0	336.7	405.4	368.4	264.7	202.8	40~ 50	285.8	1183	83.6, 83.6
60	26.05	43.32	90.49	139.6	212.5	161.1	96.96	52.79	50~ 60	154.5	1337	94.6, 94.6
70	1.543	7.610	25.26	42.11	68.55	45.38	27.18	8.829	60~ 70	59.06	1396	98.8, 98.8
80	0.0313	1.197	5.076	7.034	15.44	7.096	5.597	1.494	70~ 80	15.37	1412	99.8, 99.8
90	0	0	0	0	0	0	0	0	80~ 90	2.285	1414	100, 100
100	0	0	0	0	0	0	0	0	90~100	0	1414	100, 100
110	0	0	0	0	0	0	0	0	100~110	0	1414	100, 100
120	0	0	0	0	0	0	0	0	110~120	0	1414	100, 100
130	0	0	0	0	0	0	0	0	120~130	0	1414	100, 100
140	0	0	0	0	0	0	0	0	130~140	0	1414	100, 100
150	0	0	0	0	0	0	0	0	140~150	0	1414	100, 100
160	0	0	0	0	0	0	0	0	150~160	0	1414	100, 100
170	0	0	0	0	0	0	0	0	160~170	0	1414	100, 100
180	0	0	0	0	0	0	0	0	170~180	0	1414	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

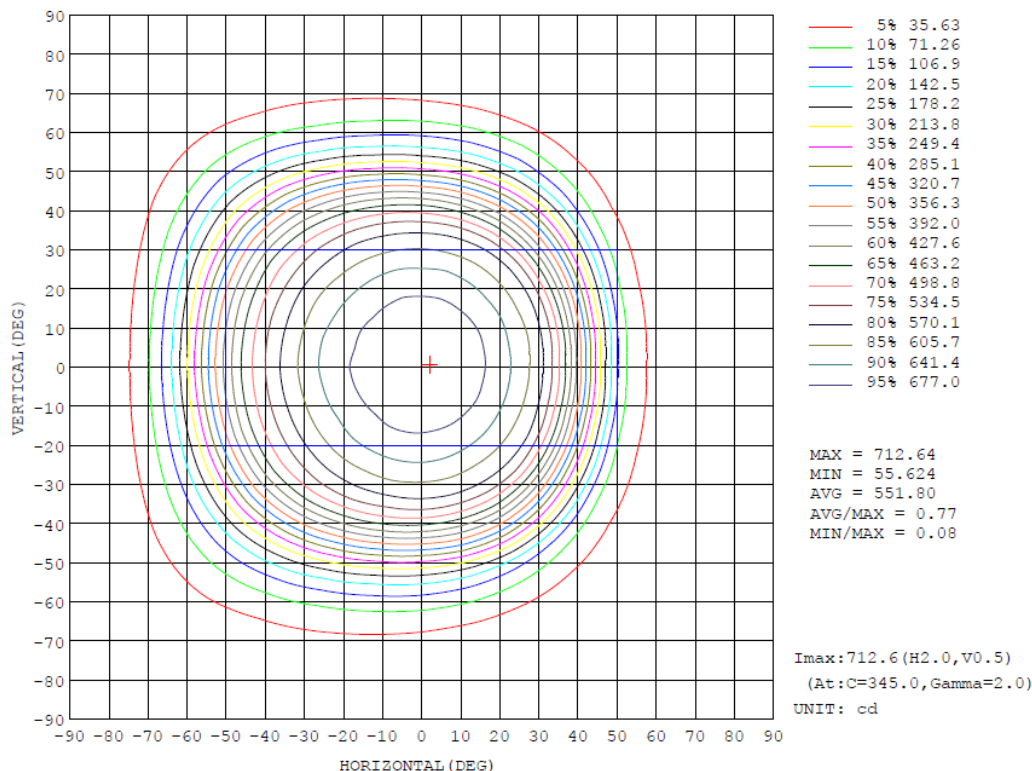
Zonal (lm)		Total (lm)		Percent
0-10	67.27	0-10	67.27	4.76%
10-20	193.42	0-20	260.69	18.44%
20-30	293.73	0-30	554.42	39.21%
30-40	342.53	0-40	896.95	63.43%
40-50	285.77	0-50	1182.72	83.64%
50-60	154.55	0-60	1337.27	94.57%
60-70	59.06	0-70	1396.33	98.75%
70-80	15.37	0-80	1411.70	99.84%
80-90	2.29	0-90	1413.99	100.00%
90-100	0.00	0-100	1413.99	100.00%
100-110	0.00	0-110	1413.99	100.00%
110-120	0.00	0-120	1413.99	100.00%
120-130	0.00	0-130	1413.99	100.00%
130-140	0.00	0-140	1413.99	100.00%
140-150	0.00	0-150	1413.99	100.00%
150-160	0.00	0-160	1413.99	100.00%
160-170	0.00	0-170	1413.99	100.00%
170-180	0.00	0-180	1413.99	100.00%

4.1 Goniophotometer Test

Area Flux Diagram

		AREA FLUX DIAGRAM																		UNIT:lm				Φ t	Φ a
VERTICAL (DEG)	90	0.00	0.01	0.03	0.04	0.04	0.04	0.05	0.07	0.05	0.03	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.43	0.00				
	80	0.01	0.03	0.08	0.14	0.20	0.30	0.40	0.46	0.45	0.39	0.28	0.17	0.09	0.04	0.01	0.00	0.00	0.00	3.04	0.00				
	70	0.01	0.06	0.18	0.39	0.71	1.12	1.47	1.71	1.78	1.63	1.25	0.75	0.35	0.12	0.04	0.01	0.00	0.00	11.6	2.74				
	60	0.01	0.10	0.35	0.93	1.90	3.10	4.19	4.95	5.21	4.84	3.86	2.48	1.16	0.39	0.09	0.02	0.00	0.00	33.6	30.0				
	50	0.02	0.14	0.61	1.83	3.99	6.68	9.16	10.9	11.7	11.1	9.24	6.17	2.94	0.96	0.22	0.03	0.00	0.00	75.7	73.7				
	40	0.02	0.19	0.95	3.01	6.51	10.3	13.5	15.8	16.8	16.6	14.9	11.1	6.04	1.92	0.44	0.06	0.00	0.00	118	117				
	30	0.02	0.24	1.29	4.17	8.50	12.6	15.9	18.1	19.4	19.3	17.9	14.8	9.17	3.30	0.66	0.10	0.00	0.00	145	144				
	20	0.02	0.28	1.57	5.02	9.68	13.8	17.1	19.5	20.7	20.7	19.3	16.5	11.4	4.54	0.88	0.13	0.00	0.00	161	160				
	10	0.02	0.31	1.73	5.44	10.2	14.4	17.7	20.1	21.3	21.3	19.9	17.2	12.3	5.18	1.00	0.15	0.00	0.00	168	167				
	0	0.02	0.31	1.70	5.38	10.2	14.3	17.7	20.1	21.3	21.3	19.9	17.1	12.2	5.08	0.97	0.15	0.00	0.00	168	166				
	-10	0.02	0.28	1.50	4.83	9.55	13.7	17.0	19.4	20.6	20.5	19.1	16.4	11.1	4.26	0.82	0.13	0.00	0.00	159	158				
	-20	0.02	0.24	1.21	3.87	8.16	12.4	15.7	18.0	19.2	19.1	17.6	14.5	8.74	2.96	0.61	0.09	0.00	0.00	142	141				
	-30	0.02	0.19	0.88	2.70	5.95	9.76	13.1	15.4	16.5	16.4	14.5	10.7	5.48	1.63	0.40	0.05	0.00	0.00	114	112				
	-40	0.02	0.14	0.57	1.62	3.49	5.92	8.31	10.1	11.0	10.6	8.74	5.59	2.46	0.81	0.20	0.02	0.00	0.00	69.6	67.2				
	-50	0.01	0.09	0.33	0.85	1.68	2.72	3.74	4.49	4.79	4.45	3.43	2.08	0.96	0.33	0.08	0.01	0.00	0.00	30.1	25.9				
	-60	0.01	0.06	0.17	0.37	0.66	1.04	1.39	1.63	1.68	1.49	1.10	0.64	0.29	0.11	0.03	0.00	0.00	0.00	10.7	1.84				
-70	0.01	0.04	0.08	0.13	0.19	0.28	0.38	0.44	0.42	0.35	0.25	0.15	0.08	0.03	0.01	0.00	0.00	0.00	2.84	0.00					
-80	0.00	0.02	0.03	0.04	0.04	0.04	0.06	0.07	0.05	0.03	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.42	0.00					
-90																									
		-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90							
Φ t	0	0.27	2.72	13.3	40.8	81.6	123	157	181	193	190	171	136	84.9	31.7	6.46	0.95	0.03	0.00	1414	---				
Φ a	0	0.00	0.00	9.53	37.8	78.8	120	154	178	190	187	168	133	81.6	27.8	1.27	0.00	0.00	0.00	---	1367				

Isocandela



4.1 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

H (DEG)	-90	-85	-80	-75	-70	-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0
V (DEG)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
-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	1.83	2.58	3.23	3.70	4.02	4.27	4.23	4.10	3.95	4.09	4.29	4.51	5.15	5.73	6.22	5.91	5.53	5.08
-70	0.00	2.68	4.16	5.70	7.23	8.84	10.7	12.6	14.4	16.0	18.8	22.0	24.7	26.6	27.9	28.4	28.1	27.0	25.3
-60	0.00	3.40	5.80	8.97	12.9	18.0	24.5	32.5	40.6	49.3	57.9	67.2	75.0	81.3	87.3	90.8	92.8	92.8	90.5
-50	0.00	4.10	7.77	13.2	21.5	33.2	47.8	66.7	88.3	112	137	163	187	206	225	237	245	249	244
-40	0.00	4.75	9.92	18.3	32.5	52.8	81.0	118	164	216	267	318	362	398	428	451	465	472	471
-30	0.00	5.31	11.9	23.8	44.6	76.1	123	184	257	332	401	457	501	536	562	579	592	600	601
-20	0.00	5.76	13.6	28.9	55.6	99.7	164	248	339	420	483	530	568	598	623	642	654	662	665
-10	0.00	6.05	14.9	32.7	64.3	118	196	293	387	464	521	566	602	633	656	674	687	696	696
0	0.00	6.17	15.4	34.3	68.5	127	213	313	405	479	535	580	618	648	671	687	701	708	711
10	0.00	6.04	14.9	32.9	65.4	122	203	300	393	467	525	569	606	637	659	677	690	698	700
20	0.00	5.73	13.7	29.4	57.2	106	175	263	353	430	489	536	574	603	626	646	659	668	669
30	0.00	5.27	12.0	24.4	46.1	81.4	135	203	279	355	420	472	512	544	569	587	599	606	608
40	0.00	4.69	10.0	18.8	33.9	56.4	89.3	133	188	244	298	349	391	424	452	471	484	490	488
50	0.00	4.04	7.72	13.5	22.5	34.7	51.3	73.5	101	130	159	187	213	234	252	263	269	271	265
60	0.00	3.35	5.70	9.06	13.3	18.8	25.8	34.2	43.7	53.9	63.9	73.8	81.9	87.6	94.5	97.1	99.3	99.7	97.0
70	0.00	2.66	4.01	5.53	7.11	9.02	11.4	13.3	15.2	16.9	20.0	23.4	26.0	27.9	29.3	29.8	29.7	28.8	27.2
80	0.00	1.83	2.53	3.05	3.46	3.78	3.98	4.04	3.93	3.67	3.86	4.07	4.32	5.02	5.66	6.14	6.01	5.85	5.60
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

																			UNIT: cd	
H (DEG)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90		
V (DEG)	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	4.13	3.08	1.98	1.67	1.49	1.51	1.17	0.86	0.58	0.36	0.20	0.09	0.05	0.03	0.03	0.03	0.03	0.00		
-70	22.8	19.9	16.7	13.3	10.2	7.57	5.61	3.88	2.54	1.59	0.85	0.38	0.18	0.07	0.03	0.03	0.03	0.00		
-60	84.6	76.7	66.5	54.2	42.2	30.5	20.4	12.6	7.80	4.72	2.53	1.21	0.49	0.16	0.05	0.03	0.03	0.00		
-50	235	217	189	155	119	85.6	58.9	38.6	23.6	13.2	6.40	2.84	1.00	0.27	0.08	0.03	0.03	0.00		
-40	461	440	407	361	297	224	147	85.3	49.4	28.6	15.6	6.45	1.83	0.45	0.13	0.04	0.03	0.00		
-30	597	586	568	533	472	388	287	182	94.8	48.6	27.4	12.8	4.01	0.79	0.17	0.04	0.03	0.00		
-20	659	649	631	606	575	510	408	284	162	72.0	38.0	19.7	6.54	1.19	0.21	0.04	0.03	0.00		
-10	694	686	669	645	611	567	480	354	216	101	45.9	24.6	8.96	1.54	0.22	0.04	0.02	0.00		
0	707	697	682	660	625	584	505	379	234	111	48.0	26.1	9.62	1.54	0.19	0.03	0.02	0.00		
10	697	689	673	650	615	573	490	364	225	108	48.0	24.9	9.30	1.72	0.28	0.05	0.03	0.00		
20	666	655	638	613	581	521	422	302	177	82.1	39.7	20.2	7.11	1.54	0.30	0.06	0.03	0.00		
30	603	593	576	543	484	404	309	204	113	55.6	29.2	13.7	4.42	1.19	0.27	0.07	0.03	0.00		
40	477	455	421	376	317	247	171	104	58.9	32.0	16.7	7.24	2.54	0.78	0.21	0.06	0.03	0.00		
50	254	235	208	175	140	104	72.2	46.2	27.3	14.9	7.19	3.46	1.47	0.46	0.15	0.05	0.03	0.00		
60	92.5	85.7	75.9	63.2	50.1	36.5	24.4	15.2	9.30	5.42	3.14	1.65	0.75	0.27	0.09	0.04	0.03	0.00		
70	25.0	22.3	19.2	15.7	12.3	9.05	6.54	4.53	3.02	1.99	1.17	0.60	0.29	0.13	0.06	0.04	0.04	0.00		
80	4.48	3.27	2.09	1.92	1.84	1.87	1.47	1.10	0.78	0.52	0.30	0.15	0.10	0.06	0.05	0.05	0.03	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.	BULLET2X12 @12W4000K	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±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	0.098	11.7	0.991	13.28

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*****