

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

Address: 408 W 14th St New York, NY 10014

Prepared By

Dongguan New Testing Centre Co., Ltd.

Address: 3F No. 1 the 1st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China

Prepare by:

Alan Wang

Engineer: Alan Wang

Date: 2025-02-21

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

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		1330
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	116.7
		105	120	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		11.4
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	5029±283	5182
		4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019 CIE13.3-1995	≥70		82.8
Minimum R9 (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019 CIE13.3-1995	N/A		11
Minimum Rf (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	≥70		83
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%		-12%
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		0.096
(Goniophotometer – Section 4.2)		Non-Worst Case		N/A
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		11.4
(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 @12W5000K	ES 1st ES#3-3	241216022-S1
2	THD and PF Test	-	BULLET2X12 @12W5000K	ES 1st ES#3-3	241216022-S1

Remark (If any):

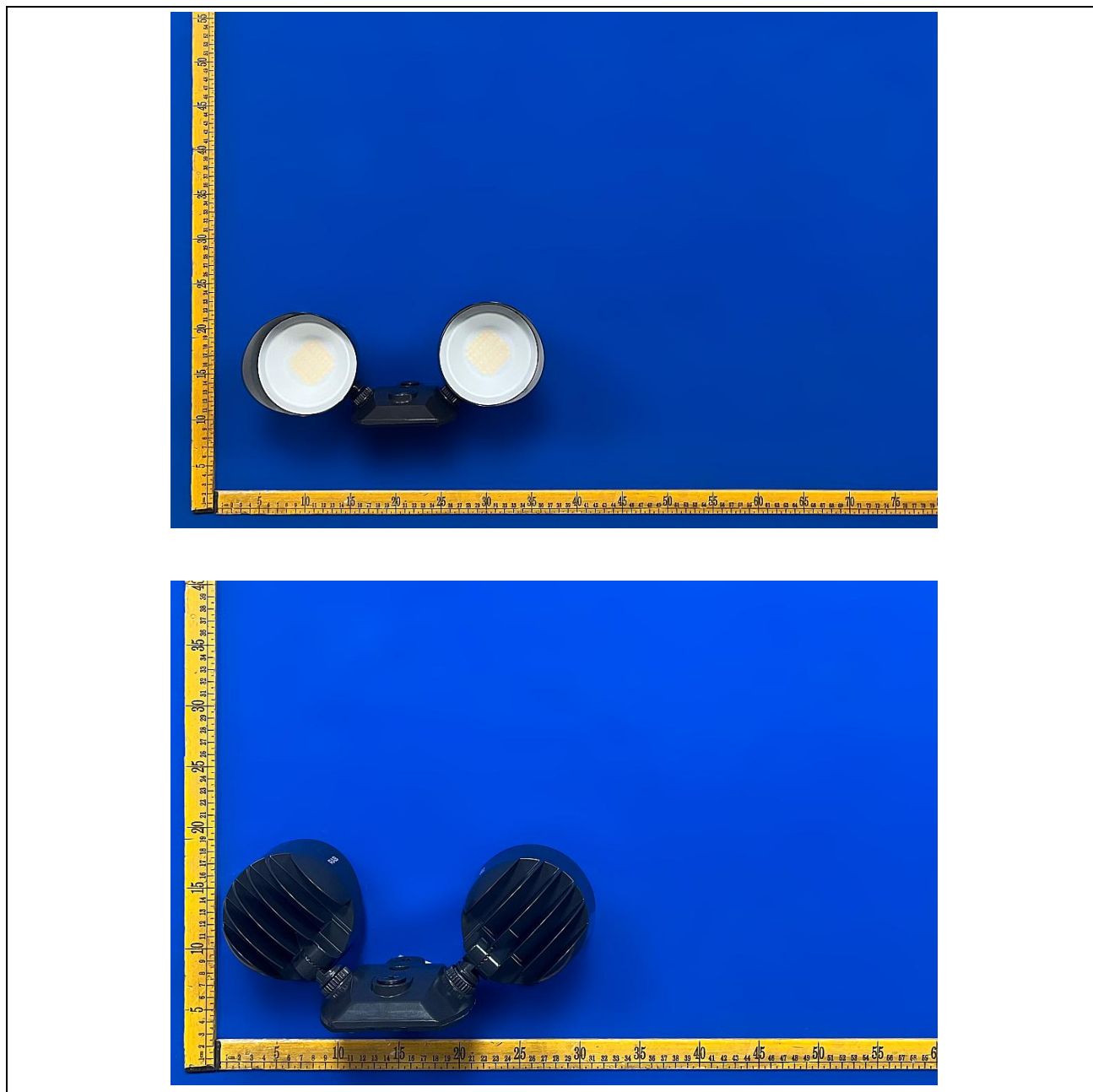
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.
4. The test result is based BULLET2X12 @12W3000K and BULLET2X12 @24W5000K.

4.0 Product Description

Luminaire Description: Model No. BULLET2X12 @12W5000K, 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 @12W5000K	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

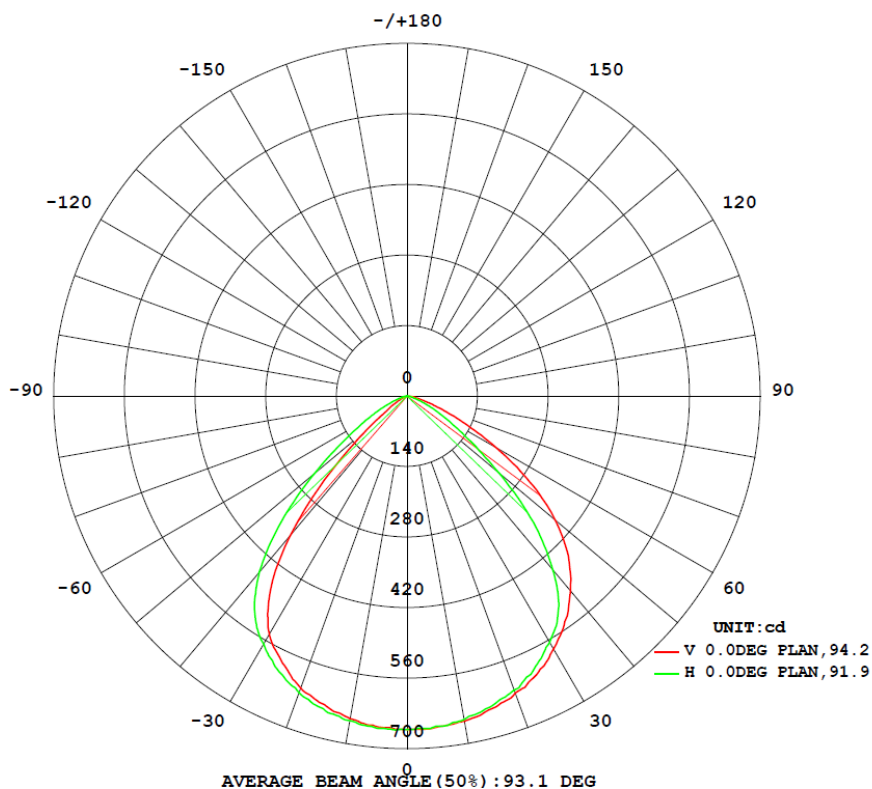
Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60	0.096	11.4	0.991
NON-WORST CASE	N/A	N/A	N/A	N/A	N/A

Test Result

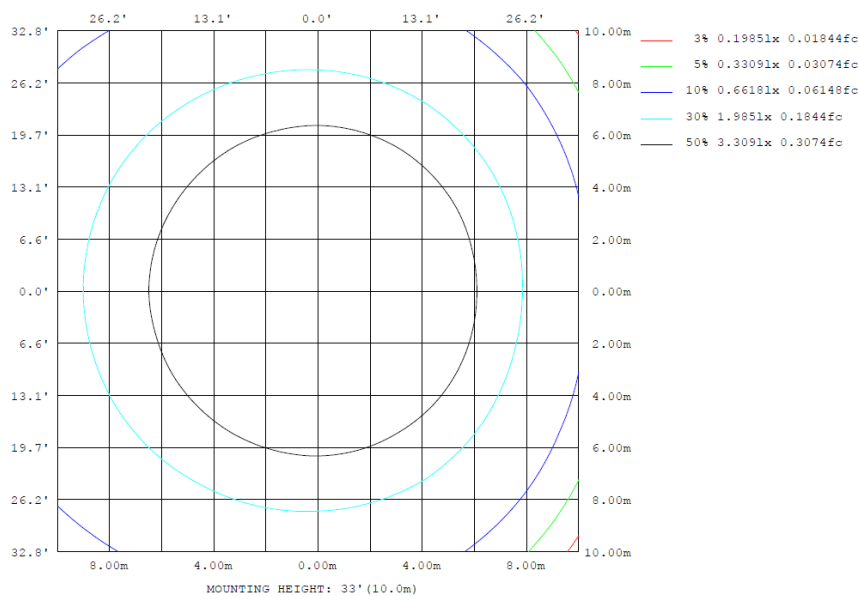
Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	NEMA Type
	C0-180	C90-270	C0-180	C90-270		(0°-90°)	
1330	124.8	126.9	93.9	92.0	116.7	100.0%	6H x 6V

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	650.0	652.0	651.9	653.2	654.8	655.5	654.0	655.1	0~ 10	62.77	62.77	4.72, 4.72
20	616.8	617.7	620.8	620.8	627.1	626.5	626.5	620.4	10~ 20	180.7	243.5	18.3, 18.3
30	546.6	552.9	564.7	572.8	580.4	573.8	568.7	558.6	20~ 30	275.0	518.5	39, 39
40	359.4	408.7	448.4	490.2	503.7	495.0	455.4	412.1	30~ 40	321.8	840.3	63.2, 63.2
50	103.6	175.0	238.9	326.0	383.7	343.5	241.3	187.9	40~ 50	270.3	1111	83.5, 83.5
60	24.74	42.75	88.99	137.3	202.4	147.7	89.52	47.15	50~ 60	146.7	1257	94.5, 94.5
70	1.447	7.413	24.82	40.73	64.99	42.18	24.81	7.955	60~ 70	55.99	1313	98.7, 98.7
80	0.0288	1.150	5.058	6.779	14.63	6.587	5.072	1.373	70~ 80	14.54	1328	99.8, 99.8
90	0	0	0	0	0	0	0	0	80~ 90	2.157	1330	100, 100
100	0	0	0	0	0	0	0	0	90~100	0	1330	100, 100
110	0	0	0	0	0	0	0	0	100~110	0	1330	100, 100
120	0	0	0	0	0	0	0	0	110~120	0	1330	100, 100
130	0	0	0	0	0	0	0	0	120~130	0	1330	100, 100
140	0	0	0	0	0	0	0	0	130~140	0	1330	100, 100
150	0	0	0	0	0	0	0	0	140~150	0	1330	100, 100
160	0	0	0	0	0	0	0	0	150~160	0	1330	100, 100
170	0	0	0	0	0	0	0	0	160~170	0	1330	100, 100
180	0	0	0	0	0	0	0	0	170~180	0	1330	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

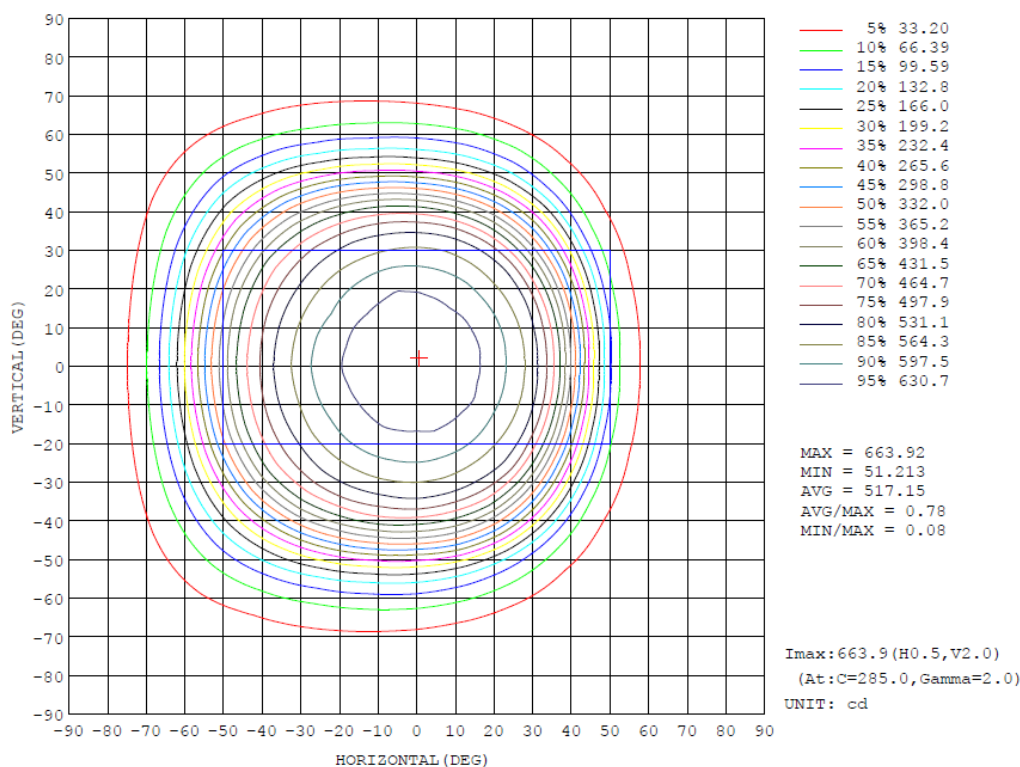
Zonal (lm)		Total (lm)		Percent
0-10	62.77	0-10	62.77	4.72%
10-20	180.72	0-20	243.49	18.31%
20-30	275.03	0-30	518.52	38.99%
30-40	321.75	0-40	840.27	63.18%
40-50	270.34	0-50	1110.61	83.51%
50-60	146.69	0-60	1257.30	94.53%
60-70	55.99	0-70	1313.29	98.74%
70-80	14.54	0-80	1327.83	99.84%
80-90	2.16	0-90	1329.99	100.00%
90-100	0.00	0-100	1329.99	100.00%
100-110	0.00	0-110	1329.99	100.00%
110-120	0.00	0-120	1329.99	100.00%
120-130	0.00	0-130	1329.99	100.00%
130-140	0.00	0-140	1329.99	100.00%
140-150	0.00	0-150	1329.99	100.00%
150-160	0.00	0-160	1329.99	100.00%
160-170	0.00	0-170	1329.99	100.00%
170-180	0.00	0-180	1329.99	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	0.06	0.05	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.40	0.00		
	80	0.01	0.03	0.07	0.12	0.18	0.28	0.37	0.42	0.41	0.35	0.25	0.15	0.08	0.03	0.01	0.00	0.00	0.00	2.78	0.00		
	70	0.01	0.06	0.16	0.36	0.66	1.04	1.37	1.58	1.64	1.49	1.13	0.67	0.31	0.11	0.04	0.01	0.00	0.00	10.6	2.45		
	60	0.01	0.09	0.33	0.86	1.75	2.85	3.85	4.54	4.78	4.46	3.55	2.26	1.04	0.35	0.09	0.02	0.00	0.00	30.8	27.4		
	50	0.01	0.13	0.57	1.70	3.72	6.20	8.48	10.1	10.8	10.3	8.51	5.69	2.68	0.87	0.20	0.03	0.00	0.00	69.9	68.0		
	40	0.02	0.18	0.89	2.82	6.11	9.65	12.7	14.8	15.8	15.6	13.8	10.3	5.60	1.74	0.40	0.05	0.00	0.00	110	109		
	30	0.02	0.23	1.22	3.93	7.99	11.9	14.9	17.0	18.1	18.0	16.7	13.8	8.60	3.06	0.62	0.09	0.00	0.00	136	135		
	20	0.02	0.27	1.48	4.74	9.13	13.0	16.0	18.2	19.4	19.3	18.0	15.4	10.7	4.26	0.82	0.12	0.00	0.00	151	150		
	10	0.02	0.29	1.64	5.16	9.62	13.5	16.6	18.8	19.9	19.9	18.6	16.0	11.6	4.88	0.93	0.14	0.00	0.00	158	157		
	0	0.02	0.29	1.62	5.12	9.60	13.5	16.6	18.8	19.9	19.8	18.6	16.0	11.5	4.80	0.92	0.14	0.00	0.00	157	156		
	-10	0.02	0.27	1.44	4.63	9.07	12.9	16.0	18.1	19.2	19.2	17.9	15.3	10.5	4.05	0.78	0.12	0.00	0.00	150	149		
	-20	0.02	0.23	1.16	3.73	7.83	11.8	14.8	16.9	18.0	17.9	16.5	13.7	8.31	2.85	0.59	0.08	0.00	0.00	134	133		
	-30	0.02	0.18	0.84	2.61	5.75	9.40	12.5	14.6	15.6	15.4	13.8	10.2	5.31	1.60	0.38	0.05	0.00	0.00	108	107		
	-40	0.01	0.13	0.55	1.58	3.40	5.77	8.12	9.85	10.6	10.3	8.53	5.48	2.44	0.80	0.19	0.02	0.00	0.00	67.8	65.8		
	-50	0.01	0.09	0.32	0.83	1.63	2.66	3.66	4.39	4.69	4.36	3.37	2.06	0.95	0.32	0.08	0.01	0.00	0.00	29.5	25.8		
	-60	0.01	0.06	0.17	0.37	0.64	1.01	1.35	1.58	1.64	1.47	1.09	0.64	0.29	0.10	0.03	0.00	0.00	0.00	10.4	2.24		
	-70	0.01	0.03	0.08	0.13	0.18	0.27	0.37	0.42	0.42	0.35	0.25	0.15	0.07	0.03	0.01	0.00	0.00	0.00	2.77	0.00		
	-80	0.00	0.01	0.03	0.04	0.04	0.04	0.05	0.07	0.05	0.03	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.41	0.00		
	-90																						
		-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90					
Φ t		0.25	2.58	12.6	38.8	77.4	116	148	170	181	178	161	128	80.0	29.9	6.10	0.89	0.03	0.00	1330	---		
Φ a		0.00	0.00	9.19	36.1	74.8	113	145	167	178	175	158	125	77.0	26.3	1.27	0.00	0.00	0.00	---	1287		

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	1.74	2.47	3.10	3.55	3.87	4.13	4.09	3.97	3.82	3.95	4.13	4.32	4.96	5.54	6.03	5.77	5.45	5.06
-70	0.00	2.55	3.97	5.44	6.93	8.55	10.4	12.3	13.9	15.3	18.0	21.1	23.7	25.6	27.0	27.6	27.4	26.4	24.8
-60	0.00	3.22	5.52	8.56	12.4	17.5	23.9	31.6	39.5	47.8	56.1	65.2	72.7	78.8	84.9	88.6	90.7	91.0	89.0
-50	0.00	3.89	7.34	12.6	20.7	32.0	46.3	64.6	86.1	110	135	160	183	203	220	233	240	244	239
-40	0.00	4.50	9.39	17.5	31.2	50.7	78.3	115	160	209	260	309	351	385	411	433	446	451	448
-30	0.00	5.03	11.4	22.8	42.7	73.0	118	177	247	321	395	437	475	506	530	546	557	563	565
-20	0.00	5.45	13.1	27.5	53.0	95.3	158	239	326	400	458	501	535	563	587	603	613	617	621
-10	0.00	5.71	14.2	31.1	61.2	113	188	280	369	440	492	534	567	595	617	630	645	649	652
0	0.00	5.83	14.6	32.6	65.0	121	202	297	384	453	504	546	580	610	627	643	655	660	662
10	0.00	5.70	14.1	31.2	61.9	115	192	284	371	440	494	537	569	596	615	636	645	653	654
20	0.00	5.41	13.1	27.7	54.0	99.0	166	249	333	405	461	504	537	564	585	605	618	627	627
30	0.00	4.97	11.5	22.9	43.3	76.6	127	191	263	333	393	442	481	512	534	549	560	567	569
40	0.00	4.42	9.36	17.6	31.8	52.8	83.0	125	176	228	278	325	364	395	421	439	452	457	455
50	0.00	3.80	7.19	12.7	21.0	32.3	47.7	67.9	92.8	120	146	173	196	214	231	241	246	248	241
60	0.00	3.15	5.34	8.45	12.4	17.4	23.8	31.6	40.4	49.9	59.2	68.2	75.6	81.2	86.6	89.6	91.0	91.4	89.5
70	0.00	2.50	3.75	5.16	6.62	8.29	10.2	12.1	14.1	15.8	18.6	21.8	24.4	26.1	27.1	27.5	27.3	26.4	24.8
80	0.00	1.72	2.37	2.84	3.22	3.52	3.71	3.75	3.64	3.39	3.60	3.82	4.06	4.29	4.56	4.86	5.15	5.33	5.07
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)	0.00	0.00	0.00	0.00	0.00	0.00	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		
-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	4.11	3.05	1.94	1.63	1.45	1.47	1.14	0.83	0.55	0.35	0.19	0.08	0.05	0.03	0.03	0.03	0.03	0.00		
-70	22.5	19.8	16.7	13.4	10.2	7.54	5.54	3.79	2.45	1.52	0.81	0.36	0.17	0.07	0.03	0.02	0.03	0.00		
-60	83.3	75.6	65.7	54.1	42.4	30.6	20.2	12.4	7.56	4.55	2.42	1.15	0.46	0.15	0.04	0.02	0.03	0.00		
-50	231	214	186	152	117	85.5	58.8	37.9	23.0	12.7	6.14	2.71	0.95	0.25	0.08	0.03	0.03	0.00		
-40	439	422	392	349	289	218	145	84.9	48.5	27.6	15.0	6.14	1.74	0.43	0.12	0.03	0.02	0.00		
-30	560	550	531	502	449	371	276	177	93.3	47.4	26.2	12.1	3.79	0.75	0.16	0.04	0.02	0.00		
-20	619	608	592	567	539	479	386	270	155	69.5	36.1	18.7	6.19	1.12	0.19	0.04	0.02	0.00		
-10	648	640	625	604	571	533	453	335	205	95.9	43.8	23.4	8.48	1.45	0.21	0.04	0.02	0.00		
0	659	650	634	617	585	547	474	359	220	104	45.4	24.7	9.10	1.45	0.18	0.03	0.02	0.00		
10	650	641	629	607	575	534	458	345	211	101	45.0	23.6	8.70	1.61	0.26	0.05	0.03	0.00		
20	621	613	596	571	543	485	396	284	164	75.1	37.3	19.1	6.56	1.43	0.28	0.06	0.03	0.00		
30	566	556	538	505	450	377	289	189	101	51.2	27.3	12.9	4.13	1.11	0.25	0.06	0.03	0.00		
40	444	421	391	347	293	229	157	94.1	53.4	29.5	15.6	6.73	2.37	0.72	0.20	0.06	0.03	0.00		
50	232	216	191	162	129	94.9	64.9	41.3	24.7	13.6	6.65	3.21	1.37	0.43	0.14	0.05	0.03	0.00		
60	85.2	78.7	69.4	57.5	45.0	32.4	21.7	13.6	8.41	4.97	2.91	1.53	0.69	0.25	0.09	0.04	0.03	0.00		
70	22.7	20.1	17.1	13.9	10.8	7.94	5.81	4.08	2.76	1.83	1.08	0.56	0.27	0.12	0.05	0.04	0.04	0.00		
80	4.03	2.92	1.84	1.70	1.64	1.67	1.32	1.00	0.72	0.47	0.28	0.14	0.09	0.06	0.05	0.04	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 @12W5000K	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	0.096	11.4	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*****