

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P226258

Luminaire Tested: **LD2B15D010 EU2B15WW8035 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226258  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14828)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B15D010 EU2B15WW8035 2LBSW\*  
Description: 1500 Lumen, 2inch Portfolio LED Downlight  
WALL WASH OPTIC  
WALL WASH LENSED TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 998.2 lumens  
Efficiency: N/A  
Efficacy: 69.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.79 / 1.02  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

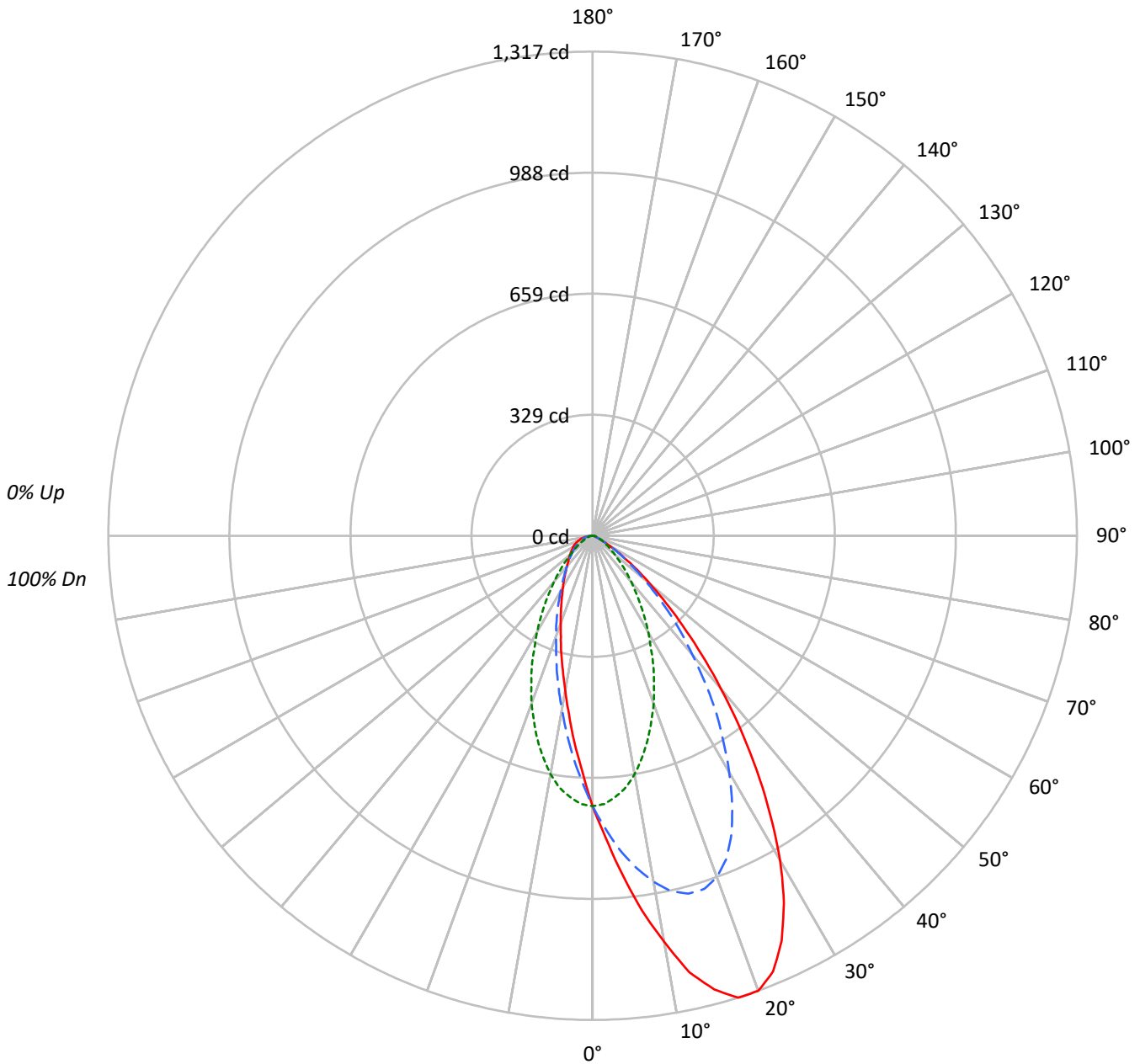
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10		0		
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	284854	284854	284854
5°	359119	277272	219492
10°	441189	259041	168499
15°	512330	231343	132053
20°	542998	200043	104123
25°	519577	167195	85734
30°	456259	135120	71966
35°	367650	106536	62040
40°	274211	82622	55065
45°	189864	62393	50178
50°	122328	46280	47726
55°	71921	35116	46799
60°	38347	28741	47953
65°	18147	22730	47660
70°	8381	19593	47679
75°	11075	18558	51932
80°	11153	16507	49743
85°	11111	22221	43999



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.5	7.0
10°-20°	193.9	19.4
20°-30°	253.0	25.3
30°-40°	219.0	21.9
40°-50°	138.7	13.9
50°-60°	69.4	7.0
60°-70°	31.9	3.2
70°-80°	17.1	1.7
80°-90°	5.5	0.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	516.4	51.7
0°-40°	735.4	73.7
0°-60°	943.5	94.5
0°-90°	998.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	998.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	735	735	735	735	735	
5°	924	859	713	604	564	94
15°	1278	1008	577	376	329	359
25°	1216	894	391	225	201	551
35°	778	584	225	136	131	483
45°	347	290	114	89	92	273
55°	106	99	52	59	69	102
65°	20	22	25	42	52	23
75°	7	7	12	25	35	7
85°	2	2	5	7	10	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4
2.5°	822.1	827.0	827.0	829.5	819.6	822.1	822.1	817.1	809.7	804.7	797.3
5°	923.6	923.6	921.1	923.6	916.1	911.2	913.7	903.8	884.0	874.0	859.2
7.5°	1027.6	1022.6	1022.6	1020.1	1007.8	1000.3	997.9	980.5	953.3	933.5	911.2
10°	1121.7	1121.7	1116.7	1111.8	1094.4	1084.5	1077.1	1049.8	1020.1	987.9	955.8
12.5°	1215.7	1210.8	1203.4	1193.5	1168.7	1158.8	1146.4	1114.2	1069.7	1032.5	990.4
15°	1277.6	1280.1	1267.7	1255.4	1228.1	1213.3	1198.4	1158.8	1106.8	1059.8	1007.8
17.5°	1317.3	1314.8	1302.4	1287.6	1257.8	1240.5	1223.2	1176.1	1121.7	1064.7	1007.8
20°	1317.3	1317.3	1302.4	1287.6	1255.4	1235.6	1218.2	1168.7	1109.3	1049.8	987.9
22.5°	1282.6	1277.6	1267.7	1252.9	1220.7	1203.4	1183.6	1134.0	1072.1	1015.2	950.8
25°	1215.7	1215.7	1203.4	1186.0	1158.8	1139.0	1121.7	1072.1	1012.7	955.8	893.9
27.5°	1126.6	1124.1	1111.8	1099.4	1069.7	1054.8	1037.5	990.4	938.4	886.4	822.1
30°	1020.1	1015.2	1010.2	990.4	970.6	958.2	943.4	901.3	849.3	799.8	742.8
32.5°	898.8	906.2	893.9	881.5	864.1	851.8	839.4	807.2	760.2	715.6	661.1
35°	777.5	782.4	775.0	765.1	747.8	740.3	728.0	700.7	666.1	624.0	584.4
37.5°	656.2	656.2	656.2	648.7	638.8	631.4	624.0	599.2	569.5	537.3	500.2
40°	542.3	549.7	539.8	537.3	529.9	527.4	520.0	502.6	477.9	455.6	420.9
42.5°	438.3	438.3	440.7	435.8	433.3	428.4	423.4	413.5	396.2	376.4	354.1
45°	346.6	349.1	351.6	344.2	344.2	344.2	341.7	331.8	316.9	304.6	289.7
47.5°	269.9	269.9	272.4	269.9	269.9	269.9	264.9	264.9	255.0	242.7	230.3
50°	203.0	205.5	208.0	208.0	208.0	205.5	205.5	200.6	195.6	190.7	178.3
52.5°	153.5	153.5	151.0	153.5	153.5	153.5	153.5	151.0	148.6	143.6	136.2
55°	106.5	106.5	108.9	108.9	108.9	111.4	111.4	111.4	108.9	106.5	99.0
57.5°	74.3	74.3	74.3	76.8	79.2	79.2	79.2	79.2	76.8	74.3	71.8
60°	49.5	49.5	49.5	52.0	52.0	52.0	52.0	54.5	52.0	52.0	49.5
62.5°	32.2	32.2	32.2	32.2	32.2	34.7	34.7	34.7	34.7	34.7	32.2
65°	19.8	19.8	19.8	19.8	19.8	19.8	22.3	22.3	22.3	22.3	22.3
67.5°	12.4	12.4	12.4	12.4	12.4	14.9	14.9	14.9	14.9	14.9	14.9
70°	7.4	7.4	7.4	7.4	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
75°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
77.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	7.4	7.4	7.4
80°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0	5.0	2.5
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4
2.5°	797.3	787.4	782.4	770.1	767.6	757.7	757.7	747.8	735.4	730.4	718.1
5°	849.3	829.5	819.6	797.3	789.9	775.0	767.6	747.8	728.0	713.1	695.8
7.5°	893.9	864.1	844.3	814.6	802.2	780.0	765.1	740.3	713.1	690.8	666.1
10°	928.5	888.9	859.2	819.6	804.7	777.5	755.2	720.5	685.9	658.6	628.9
12.5°	950.8	903.8	861.7	814.6	794.8	765.1	732.9	693.3	653.7	619.0	586.8
15°	960.7	903.8	854.2	797.3	775.0	742.8	705.7	658.6	614.1	576.9	542.3
17.5°	953.3	886.4	834.4	770.1	745.3	708.2	666.1	616.5	569.5	529.9	495.2
20°	928.5	859.2	799.8	732.9	705.7	668.5	621.5	572.0	524.9	485.3	448.2
22.5°	886.4	814.6	752.7	685.9	658.6	621.5	572.0	522.4	475.4	435.8	401.1
25°	834.4	757.7	695.8	631.4	601.7	569.5	520.0	470.5	425.9	391.2	356.6
27.5°	765.1	698.2	636.3	572.0	544.7	515.0	465.5	420.9	376.4	341.7	312.0
30°	690.8	626.4	574.4	512.5	487.8	458.1	416.0	371.4	334.3	302.1	274.8
32.5°	616.5	554.6	505.1	453.1	430.8	401.1	364.0	324.4	289.7	262.5	240.2
35°	539.8	487.8	440.7	391.2	373.9	349.1	314.5	279.8	250.1	225.3	203.0
37.5°	463.0	420.9	378.8	339.2	319.4	299.6	267.4	237.7	210.5	190.7	173.3
40°	393.7	356.6	321.9	284.7	267.4	252.6	225.3	200.6	180.8	163.4	148.6
42.5°	326.8	297.1	267.4	237.7	222.8	210.5	188.2	165.9	148.6	136.2	123.8
45°	267.4	245.1	220.4	193.1	185.7	170.8	153.5	138.7	123.8	113.9	104.0
47.5°	215.4	195.6	175.8	156.0	148.6	138.7	123.8	111.4	101.5	94.1	86.7
50°	168.4	153.5	141.1	123.8	118.9	108.9	99.0	89.1	81.7	76.8	71.8
52.5°	128.8	116.4	106.5	96.6	91.6	86.7	76.8	71.8	66.9	64.4	61.9
55°	94.1	86.7	79.2	71.8	69.3	64.4	59.4	54.5	52.0	52.0	52.0
57.5°	66.9	61.9	56.9	52.0	52.0	49.5	47.0	44.6	42.1	42.1	42.1
60°	47.0	44.6	42.1	39.6	37.1	37.1	34.7	37.1	34.7	37.1	37.1
62.5°	32.2	29.7	29.7	27.2	27.2	27.2	27.2	27.2	29.7	29.7	32.2
65°	19.8	19.8	19.8	19.8	19.8	19.8	22.3	22.3	22.3	24.8	24.8
67.5°	14.9	14.9	14.9	17.3	17.3	17.3	17.3	19.8	19.8	19.8	22.3
70°	9.9	12.4	12.4	12.4	12.4	12.4	14.9	14.9	14.9	17.3	17.3
72.5°	9.9	9.9	9.9	9.9	9.9	9.9	12.4	12.4	12.4	14.9	14.9
75°	7.4	9.9	9.9	9.9	9.9	9.9	9.9	12.4	12.4	12.4	14.9
77.5°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	9.9	9.9	9.9	9.9
80°	5.0	5.0	5.0	7.4	7.4	7.4	7.4	7.4	7.4	7.4	9.9
82.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	7.4
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0	2.5	5.0	5.0
87.5°	0.0	0.0	0.0	2.5	0.0	2.5	2.5	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4
2.5°	713.1	705.7	708.2	693.3	695.8	685.9	680.9	673.5	668.5	661.1	663.6
5°	683.4	671.0	666.1	648.7	651.2	636.3	626.4	614.1	604.2	591.8	589.3
7.5°	646.3	626.4	619.0	601.7	599.2	579.4	567.0	552.2	539.8	527.4	522.4
10°	604.2	581.9	567.0	549.7	547.2	524.9	510.1	495.2	480.4	468.0	463.0
12.5°	559.6	534.8	517.5	497.7	492.7	472.9	455.6	440.7	425.9	413.5	406.1
15°	512.5	485.3	468.0	448.2	443.2	420.9	406.1	388.7	376.4	364.0	359.0
17.5°	465.5	438.3	418.5	401.1	396.2	373.9	356.6	344.2	329.3	321.9	314.5
20°	418.5	391.2	371.4	356.6	349.1	331.8	314.5	302.1	289.7	282.3	274.8
22.5°	371.4	346.6	329.3	314.5	309.5	292.2	277.3	264.9	257.5	247.6	242.7
25°	329.3	304.6	289.7	274.8	269.9	255.0	245.1	232.7	225.3	217.9	212.9
27.5°	289.7	267.4	252.6	240.2	237.7	225.3	212.9	205.5	198.1	193.1	190.7
30°	250.1	232.7	220.4	210.5	208.0	195.6	185.7	180.8	173.3	170.8	168.4
32.5°	220.4	203.0	193.1	183.2	180.8	170.8	165.9	158.5	153.5	151.0	151.0
35°	188.2	175.8	165.9	160.9	158.5	151.0	143.6	141.1	136.2	133.7	133.7
37.5°	160.9	151.0	143.6	136.2	136.2	131.2	126.3	123.8	121.3	121.3	118.9
40°	138.7	128.8	126.3	121.3	118.9	116.4	113.9	111.4	108.9	108.9	108.9
42.5°	116.4	111.4	106.5	104.0	104.0	101.5	99.0	99.0	96.6	99.0	99.0
45°	99.0	94.1	91.6	89.1	91.6	89.1	89.1	86.7	89.1	89.1	89.1
47.5°	84.2	81.7	79.2	79.2	79.2	79.2	79.2	79.2	79.2	81.7	81.7
50°	71.8	69.3	69.3	69.3	69.3	69.3	71.8	71.8	71.8	74.3	74.3
52.5°	59.4	59.4	59.4	59.4	61.9	61.9	64.4	64.4	66.9	66.9	69.3
55°	52.0	52.0	52.0	52.0	54.5	54.5	56.9	59.4	59.4	61.9	64.4
57.5°	44.6	44.6	47.0	47.0	49.5	49.5	52.0	54.5	54.5	56.9	59.4
60°	37.1	39.6	42.1	42.1	42.1	44.6	47.0	49.5	49.5	52.0	54.5
62.5°	32.2	34.7	37.1	37.1	37.1	39.6	42.1	44.6	44.6	47.0	49.5
65°	27.2	29.7	32.2	32.2	32.2	34.7	37.1	39.6	42.1	42.1	44.6
67.5°	24.8	24.8	27.2	27.2	29.7	32.2	32.2	34.7	37.1	39.6	42.1
70°	19.8	22.3	24.8	24.8	24.8	27.2	29.7	32.2	32.2	34.7	37.1
72.5°	17.3	17.3	19.8	19.8	22.3	24.8	24.8	27.2	29.7	29.7	32.2
75°	14.9	17.3	17.3	17.3	19.8	19.8	22.3	24.8	24.8	27.2	27.2
77.5°	12.4	12.4	14.9	14.9	14.9	17.3	17.3	19.8	19.8	22.3	22.3
80°	9.9	9.9	12.4	12.4	12.4	12.4	14.9	14.9	17.3	17.3	17.3
82.5°	7.4	7.4	7.4	7.4	9.9	9.9	9.9	9.9	12.4	12.4	12.4
85°	5.0	5.0	5.0	5.0	5.0	7.4	7.4	7.4	7.4	7.4	9.9
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	735.4	735.4	735.4	735.4	735.4	735.4	735.4	735.4
2.5°	656.2	656.2	653.7	651.2	648.7	646.3	643.8	641.3
5°	581.9	584.4	574.4	572.0	572.0	567.0	569.5	564.5
7.5°	512.5	512.5	505.1	502.6	500.2	495.2	492.7	490.3
10°	450.6	448.2	443.2	440.7	435.8	433.3	433.3	428.4
12.5°	396.2	393.7	388.7	386.3	381.3	378.8	376.4	373.9
15°	349.1	346.6	341.7	339.2	336.7	331.8	331.8	329.3
17.5°	304.6	302.1	299.6	294.7	294.7	289.7	287.2	287.2
20°	269.9	267.4	262.5	260.0	260.0	257.5	257.5	252.6
22.5°	237.7	235.2	232.7	230.3	230.3	227.8	225.3	225.3
25°	210.5	208.0	205.5	205.5	203.0	200.6	200.6	200.6
27.5°	185.7	185.7	183.2	183.2	183.2	180.8	180.8	178.3
30°	165.9	165.9	163.4	163.4	163.4	160.9	163.4	160.9
32.5°	148.6	148.6	148.6	148.6	148.6	146.1	146.1	146.1
35°	133.7	133.7	133.7	133.7	133.7	131.2	133.7	131.2
37.5°	118.9	121.3	118.9	118.9	121.3	118.9	118.9	118.9
40°	108.9	108.9	108.9	108.9	108.9	108.9	108.9	108.9
42.5°	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
45°	89.1	91.6	91.6	91.6	91.6	91.6	91.6	91.6
47.5°	84.2	84.2	84.2	84.2	86.7	84.2	86.7	86.7
50°	76.8	76.8	76.8	79.2	79.2	79.2	79.2	79.2
52.5°	71.8	71.8	71.8	71.8	74.3	74.3	74.3	74.3
55°	64.4	66.9	66.9	66.9	69.3	69.3	69.3	69.3
57.5°	61.9	61.9	61.9	64.4	64.4	64.4	66.9	64.4
60°	56.9	56.9	59.4	59.4	59.4	61.9	61.9	61.9
62.5°	52.0	54.5	54.5	54.5	54.5	56.9	56.9	56.9
65°	47.0	49.5	49.5	49.5	52.0	52.0	52.0	52.0
67.5°	42.1	44.6	44.6	47.0	47.0	47.0	47.0	47.0
70°	37.1	39.6	39.6	39.6	42.1	42.1	42.1	42.1
72.5°	34.7	34.7	34.7	37.1	37.1	37.1	39.6	37.1
75°	29.7	32.2	32.2	32.2	32.2	32.2	34.7	34.7
77.5°	24.8	24.8	24.8	24.8	27.2	27.2	27.2	27.2
80°	19.8	19.8	19.8	19.8	22.3	22.3	22.3	22.3
82.5°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
85°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
87.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)