

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: P226259

Luminaire Tested: **LD2B15D010 EU2B15WW8040 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226259  
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 EU2B15WW8040 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: 1039.0 lumens  
Efficiency: N/A  
Efficacy: 72.7 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

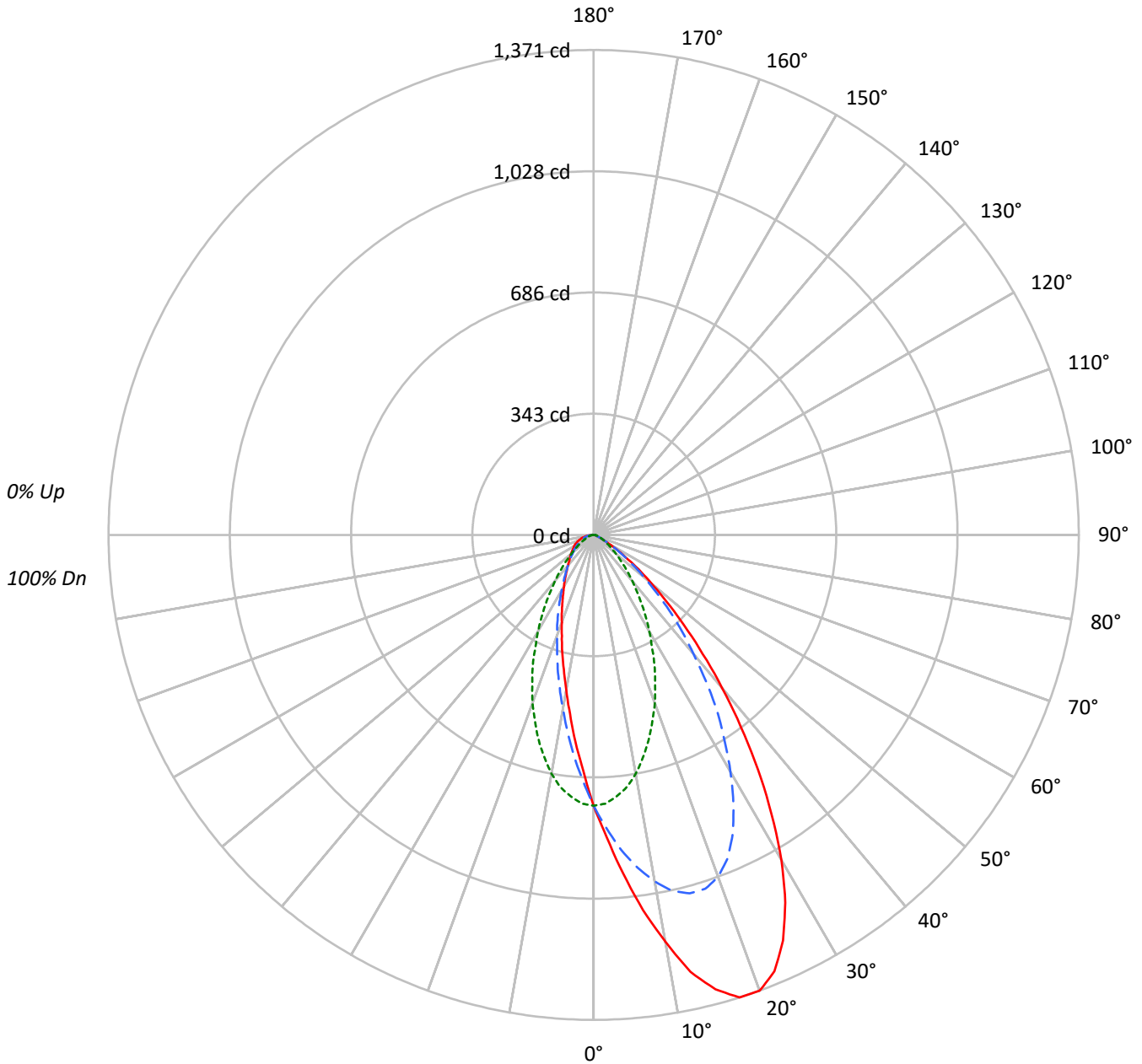
Input Watts (W): 14.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	296513	296513	296513
5°	373778	288625	228474
10°	459203	269661	175382
15°	533303	240807	137466
20°	565174	208246	108369
25°	540861	174033	89239
30°	474955	140621	74917
35°	382687	110886	64593
40°	285386	86010	57340
45°	197643	64968	52259
50°	127330	48148	49715
55°	74825	36535	48758
60°	39897	29981	49890
65°	18881	23647	49585
70°	8720	20385	49605
75°	11524	19306	54027
80°	11599	17176	51751
85°	11555	23110	45776



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.3	7.0
10°-20°	201.9	19.4
20°-30°	263.3	25.3
30°-40°	228.0	21.9
40°-50°	144.3	13.9
50°-60°	72.3	7.0
60°-70°	33.3	3.2
70°-80°	17.8	1.7
80°-90°	5.8	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°	537.5	51.7
0°-40°	765.5	73.7
0°-60°	982.1	94.5
0°-90°	1039.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1039.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	766	766	766	766	766	
5°	961	894	742	629	588	98
15°	1330	1049	600	392	343	374
25°	1266	930	407	234	209	573
35°	809	608	234	142	137	503
45°	361	302	119	93	95	284
55°	111	103	54	62	72	106
65°	21	23	26	44	54	24
75°	8	8	13	26	36	7
85°	3	3	5	8	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°	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5
2.5°	855.7	860.8	860.8	863.4	853.1	855.7	855.7	850.5	842.8	837.6	829.9
5°	961.3	961.3	958.8	961.3	953.6	948.5	951.0	940.7	920.1	909.8	894.3
7.5°	1069.6	1064.4	1064.4	1061.9	1049.0	1041.2	1038.7	1020.6	992.3	971.7	948.5
10°	1167.5	1167.5	1162.4	1157.2	1139.2	1128.9	1121.1	1092.8	1061.9	1028.4	994.9
12.5°	1265.5	1260.3	1252.6	1242.3	1216.5	1206.2	1193.3	1159.8	1113.4	1074.7	1030.9
15°	1329.9	1332.5	1319.6	1306.7	1278.4	1262.9	1247.4	1206.2	1152.1	1103.1	1049.0
17.5°	1371.1	1368.6	1355.7	1340.2	1309.3	1291.2	1273.2	1224.2	1167.5	1108.3	1049.0
20°	1371.1	1371.1	1355.7	1340.2	1306.7	1286.1	1268.0	1216.5	1154.6	1092.8	1028.4
22.5°	1335.1	1329.9	1319.6	1304.1	1270.6	1252.6	1232.0	1180.4	1116.0	1056.7	989.7
25°	1265.5	1265.5	1252.6	1234.5	1206.2	1185.6	1167.5	1116.0	1054.1	994.9	930.4
27.5°	1172.7	1170.1	1157.2	1144.3	1113.4	1097.9	1079.9	1030.9	976.8	922.7	855.7
30°	1061.9	1056.7	1051.6	1030.9	1010.3	997.4	982.0	938.1	884.0	832.5	773.2
32.5°	935.6	943.3	930.4	917.5	899.5	886.6	873.7	840.2	791.2	744.8	688.1
35°	809.3	814.4	806.7	796.4	778.4	770.6	757.7	729.4	693.3	649.5	608.3
37.5°	683.0	683.0	683.0	675.3	665.0	657.2	649.5	623.7	592.8	559.3	520.6
40°	564.4	572.2	561.9	559.3	551.5	549.0	541.2	523.2	497.4	474.2	438.1
42.5°	456.2	456.2	458.8	453.6	451.0	445.9	440.7	430.4	412.4	391.8	368.6
45°	360.8	363.4	366.0	358.2	358.2	358.2	355.7	345.4	329.9	317.0	301.5
47.5°	280.9	280.9	283.5	280.9	280.9	280.9	275.8	275.8	265.5	252.6	239.7
50°	211.3	213.9	216.5	216.5	216.5	213.9	213.9	208.8	203.6	198.5	185.6
52.5°	159.8	159.8	157.2	159.8	159.8	159.8	159.8	157.2	154.6	149.5	141.8
55°	110.8	110.8	113.4	113.4	113.4	116.0	116.0	116.0	113.4	110.8	103.1
57.5°	77.3	77.3	77.3	79.9	82.5	82.5	82.5	82.5	79.9	77.3	74.7
60°	51.5	51.5	51.5	54.1	54.1	54.1	54.1	56.7	54.1	54.1	51.5
62.5°	33.5	33.5	33.5	33.5	33.5	36.1	36.1	36.1	36.1	36.1	33.5
65°	20.6	20.6	20.6	20.6	20.6	20.6	23.2	23.2	23.2	23.2	23.2
67.5°	12.9	12.9	12.9	12.9	12.9	15.5	15.5	15.5	15.5	15.5	15.5
70°	7.7	7.7	7.7	7.7	10.3	10.3	10.3	10.3	10.3	10.3	10.3
72.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
75°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
77.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	7.7	7.7	7.7
80°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	5.2	5.2	2.6
85°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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°	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5
2.5°	829.9	819.6	814.4	801.6	799.0	788.7	788.7	778.4	765.5	760.3	747.4
5°	884.0	863.4	853.1	829.9	822.2	806.7	799.0	778.4	757.7	742.3	724.2
7.5°	930.4	899.5	878.9	847.9	835.1	811.9	796.4	770.6	742.3	719.1	693.3
10°	966.5	925.3	894.3	853.1	837.6	809.3	786.1	750.0	713.9	685.6	654.6
12.5°	989.7	940.7	896.9	847.9	827.3	796.4	762.9	721.7	680.4	644.3	610.8
15°	1000.0	940.7	889.2	829.9	806.7	773.2	734.5	685.6	639.2	600.5	564.4
17.5°	992.3	922.7	868.6	801.6	775.8	737.1	693.3	641.8	592.8	551.5	515.5
20°	966.5	894.3	832.5	762.9	734.5	695.9	646.9	595.4	546.4	505.2	466.5
22.5°	922.7	847.9	783.5	713.9	685.6	646.9	595.4	543.8	494.8	453.6	417.5
25°	868.6	788.7	724.2	657.2	626.3	592.8	541.2	489.7	443.3	407.2	371.1
27.5°	796.4	726.8	662.4	595.4	567.0	536.1	484.5	438.1	391.8	355.7	324.7
30°	719.1	652.1	597.9	533.5	507.7	476.8	433.0	386.6	347.9	314.4	286.1
32.5°	641.8	577.3	525.8	471.7	448.5	417.5	378.9	337.6	301.5	273.2	250.0
35°	561.9	507.7	458.8	407.2	389.2	363.4	327.3	291.2	260.3	234.5	211.3
37.5°	482.0	438.1	394.3	353.1	332.5	311.9	278.4	247.4	219.1	198.5	180.4
40°	409.8	371.1	335.1	296.4	278.4	262.9	234.5	208.8	188.1	170.1	154.6
42.5°	340.2	309.3	278.4	247.4	232.0	219.1	195.9	172.7	154.6	141.8	128.9
45°	278.4	255.2	229.4	201.0	193.3	177.8	159.8	144.3	128.9	118.6	108.2
47.5°	224.2	203.6	183.0	162.4	154.6	144.3	128.9	116.0	105.7	97.9	90.2
50°	175.3	159.8	146.9	128.9	123.7	113.4	103.1	92.8	85.1	79.9	74.7
52.5°	134.0	121.1	110.8	100.5	95.4	90.2	79.9	74.7	69.6	67.0	64.4
55°	97.9	90.2	82.5	74.7	72.2	67.0	61.9	56.7	54.1	54.1	54.1
57.5°	69.6	64.4	59.3	54.1	54.1	51.5	49.0	46.4	43.8	43.8	43.8
60°	49.0	46.4	43.8	41.2	38.7	38.7	36.1	38.7	36.1	38.7	38.7
62.5°	33.5	30.9	30.9	28.4	28.4	28.4	28.4	28.4	30.9	30.9	33.5
65°	20.6	20.6	20.6	20.6	20.6	20.6	23.2	23.2	23.2	25.8	25.8
67.5°	15.5	15.5	15.5	18.0	18.0	18.0	18.0	20.6	20.6	20.6	23.2
70°	10.3	12.9	12.9	12.9	12.9	12.9	15.5	15.5	15.5	18.0	18.0
72.5°	10.3	10.3	10.3	10.3	10.3	10.3	12.9	12.9	12.9	15.5	15.5
75°	7.7	10.3	10.3	10.3	10.3	10.3	10.3	12.9	12.9	12.9	15.5
77.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	10.3	10.3	10.3	10.3
80°	5.2	5.2	5.2	7.7	7.7	7.7	7.7	7.7	7.7	7.7	10.3
82.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	7.7
85°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	5.2	2.6	5.2	5.2
87.5°	0.0	0.0	0.0	2.6	0.0	2.6	2.6	2.6	2.6	2.6	2.6
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°	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5
2.5°	742.3	734.5	737.1	721.7	724.2	713.9	708.8	701.0	695.9	688.1	690.7
5°	711.3	698.5	693.3	675.3	677.8	662.4	652.1	639.2	628.9	616.0	613.4
7.5°	672.7	652.1	644.3	626.3	623.7	603.1	590.2	574.7	561.9	549.0	543.8
10°	628.9	605.7	590.2	572.2	569.6	546.4	530.9	515.5	500.0	487.1	482.0
12.5°	582.5	556.7	538.7	518.0	512.9	492.3	474.2	458.8	443.3	430.4	422.7
15°	533.5	505.2	487.1	466.5	461.3	438.1	422.7	404.6	391.8	378.9	373.7
17.5°	484.5	456.2	435.6	417.5	412.4	389.2	371.1	358.2	342.8	335.1	327.3
20°	435.6	407.2	386.6	371.1	363.4	345.4	327.3	314.4	301.5	293.8	286.1
22.5°	386.6	360.8	342.8	327.3	322.2	304.1	288.7	275.8	268.0	257.7	252.6
25°	342.8	317.0	301.5	286.1	280.9	265.5	255.2	242.3	234.5	226.8	221.7
27.5°	301.5	278.4	262.9	250.0	247.4	234.5	221.7	213.9	206.2	201.0	198.5
30°	260.3	242.3	229.4	219.1	216.5	203.6	193.3	188.1	180.4	177.8	175.3
32.5°	229.4	211.3	201.0	190.7	188.1	177.8	172.7	164.9	159.8	157.2	157.2
35°	195.9	183.0	172.7	167.5	164.9	157.2	149.5	146.9	141.8	139.2	139.2
37.5°	167.5	157.2	149.5	141.8	141.8	136.6	131.4	128.9	126.3	126.3	123.7
40°	144.3	134.0	131.4	126.3	123.7	121.1	118.6	116.0	113.4	113.4	113.4
42.5°	121.1	116.0	110.8	108.2	108.2	105.7	103.1	103.1	100.5	103.1	103.1
45°	103.1	97.9	95.4	92.8	95.4	92.8	92.8	90.2	92.8	92.8	92.8
47.5°	87.6	85.1	82.5	82.5	82.5	82.5	82.5	82.5	82.5	85.1	85.1
50°	74.7	72.2	72.2	72.2	72.2	72.2	74.7	74.7	74.7	77.3	77.3
52.5°	61.9	61.9	61.9	61.9	64.4	64.4	67.0	67.0	69.6	69.6	72.2
55°	54.1	54.1	54.1	54.1	56.7	56.7	59.3	61.9	61.9	64.4	67.0
57.5°	46.4	46.4	49.0	49.0	51.5	51.5	54.1	56.7	56.7	59.3	61.9
60°	38.7	41.2	43.8	43.8	43.8	46.4	49.0	51.5	51.5	54.1	56.7
62.5°	33.5	36.1	38.7	38.7	38.7	41.2	43.8	46.4	46.4	49.0	51.5
65°	28.4	30.9	33.5	33.5	33.5	36.1	38.7	41.2	43.8	43.8	46.4
67.5°	25.8	25.8	28.4	28.4	30.9	33.5	33.5	36.1	38.7	41.2	43.8
70°	20.6	23.2	25.8	25.8	25.8	28.4	30.9	33.5	33.5	36.1	38.7
72.5°	18.0	18.0	20.6	20.6	23.2	25.8	25.8	28.4	30.9	30.9	33.5
75°	15.5	18.0	18.0	18.0	20.6	20.6	23.2	25.8	25.8	28.4	28.4
77.5°	12.9	12.9	15.5	15.5	15.5	18.0	18.0	20.6	20.6	23.2	23.2
80°	10.3	10.3	12.9	12.9	12.9	12.9	15.5	15.5	18.0	18.0	18.0
82.5°	7.7	7.7	7.7	7.7	10.3	10.3	10.3	10.3	12.9	12.9	12.9
85°	5.2	5.2	5.2	5.2	5.2	7.7	7.7	7.7	7.7	7.7	10.3
87.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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°	765.5	765.5	765.5	765.5	765.5	765.5	765.5	765.5
2.5°	683.0	683.0	680.4	677.8	675.3	672.7	670.1	667.5
5°	605.7	608.3	597.9	595.4	595.4	590.2	592.8	587.6
7.5°	533.5	533.5	525.8	523.2	520.6	515.5	512.9	510.3
10°	469.1	466.5	461.3	458.8	453.6	451.0	451.0	445.9
12.5°	412.4	409.8	404.6	402.1	396.9	394.3	391.8	389.2
15°	363.4	360.8	355.7	353.1	350.5	345.4	345.4	342.8
17.5°	317.0	314.4	311.9	306.7	306.7	301.5	299.0	299.0
20°	280.9	278.4	273.2	270.6	270.6	268.0	268.0	262.9
22.5°	247.4	244.8	242.3	239.7	239.7	237.1	234.5	234.5
25°	219.1	216.5	213.9	213.9	211.3	208.8	208.8	208.8
27.5°	193.3	193.3	190.7	190.7	190.7	188.1	188.1	185.6
30°	172.7	172.7	170.1	170.1	170.1	167.5	170.1	167.5
32.5°	154.6	154.6	154.6	154.6	154.6	152.1	152.1	152.1
35°	139.2	139.2	139.2	139.2	139.2	136.6	139.2	136.6
37.5°	123.7	126.3	123.7	123.7	126.3	123.7	123.7	123.7
40°	113.4	113.4	113.4	113.4	113.4	113.4	113.4	113.4
42.5°	103.1	103.1	103.1	103.1	103.1	103.1	103.1	103.1
45°	92.8	95.4	95.4	95.4	95.4	95.4	95.4	95.4
47.5°	87.6	87.6	87.6	87.6	90.2	87.6	90.2	90.2
50°	79.9	79.9	79.9	82.5	82.5	82.5	82.5	82.5
52.5°	74.7	74.7	74.7	74.7	77.3	77.3	77.3	77.3
55°	67.0	69.6	69.6	69.6	72.2	72.2	72.2	72.2
57.5°	64.4	64.4	64.4	67.0	67.0	67.0	69.6	67.0
60°	59.3	59.3	61.9	61.9	61.9	64.4	64.4	64.4
62.5°	54.1	56.7	56.7	56.7	56.7	59.3	59.3	59.3
65°	49.0	51.5	51.5	51.5	54.1	54.1	54.1	54.1
67.5°	43.8	46.4	46.4	49.0	49.0	49.0	49.0	49.0
70°	38.7	41.2	41.2	41.2	43.8	43.8	43.8	43.8
72.5°	36.1	36.1	36.1	38.7	38.7	38.7	41.2	38.7
75°	30.9	33.5	33.5	33.5	33.5	33.5	36.1	36.1
77.5°	25.8	25.8	25.8	25.8	28.4	28.4	28.4	28.4
80°	20.6	20.6	20.6	20.6	23.2	23.2	23.2	23.2
82.5°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
85°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
87.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
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)