

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: P212714

Luminaire Tested: **LD4B15D010 EU4B10209040 4LBSWLI1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P212714  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B15D010 EU4B10209040 4LBSWLI1  
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1177.8 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

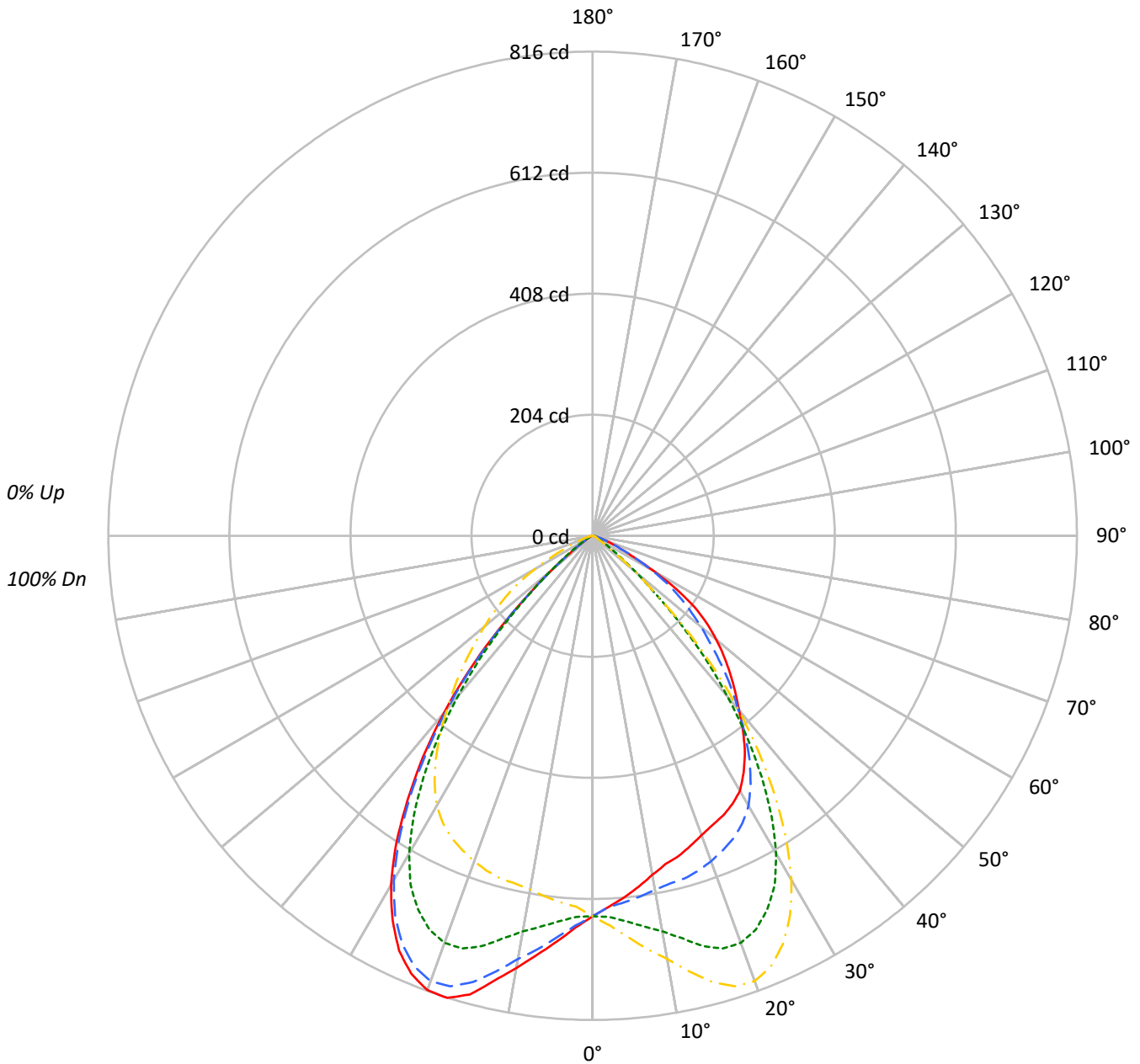
Input Watts (W): 14.39  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
RC	80									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	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91																			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82																			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	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	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60																			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41																			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38																			

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

	0°	90°	180°	270°
0°	79089	79089	79089	79089
5°	75714	80753	84951	80753
10°	72669	84768	92609	84768
15°	71383	91393	102209	91393
20°	70488	95834	106952	95834
25°	70784	94642	105012	94642
30°	70701	88063	96751	88063
35°	67338	74747	81748	74747
40°	61782	56871	62732	56871
45°	57041	36196	39004	36196
50°	52175	17558	17059	17558
55°	45181	7656	5462	7656
60°	29258	3750	2516	3750
65°	15323	2481	1985	2481
70°	8259	1839	1515	1839
75°	4432	1620	1191	1620
80°	2983	1208	568	1208
85°	2406	1132	0	1132



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	5.3
10°-20°	195.5	16.6
20°-30°	304.0	25.8
30°-40°	307.1	26.1
40°-50°	194.4	16.5
50°-60°	81.6	6.9
60°-70°	25.9	2.2
70°-80°	5.9	0.5
80°-90°	0.8	0.1
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°	562.1	47.7
0°-40°	869.1	73.8
0°-60°	1145.2	97.2
0°-90°	1177.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1177.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	641	641	641	641	641	
5°	612	652	686	652	612	57
15°	559	716	800	716	559	158
25°	520	695	772	695	520	240
35°	447	496	543	496	447	278
45°	327	208	224	208	327	252
55°	210	36	25	36	210	181
65°	52	8	7	8	52	58
75°	9	3	2	3	9	11
85°	2	1	0	1	2	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°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	625.9	620.0	625.1	626.8	626.8	625.9	627.6	625.9	623.4	633.6	625.9
5°	611.5	607.3	611.5	613.2	614.1	614.9	616.6	616.6	615.8	625.1	620.0
7.5°	596.3	593.8	597.1	599.7	603.1	602.2	604.8	605.6	607.3	618.3	613.2
10°	580.2	577.7	581.9	583.6	587.8	588.7	590.4	592.9	596.3	607.3	605.6
12.5°	566.7	565.8	568.4	571.7	576.0	576.8	578.5	582.8	587.8	599.7	600.5
15°	559.0	558.2	560.7	564.1	567.5	569.2	570.9	576.8	581.9	594.6	598.0
17.5°	548.0	548.0	550.6	554.0	558.2	559.9	562.4	568.4	575.1	587.8	592.1
20°	537.0	537.9	539.6	542.9	547.2	548.9	551.4	557.3	565.0	577.7	583.6
22.5°	527.7	530.2	531.1	533.6	537.9	540.4	541.2	548.0	554.8	565.8	573.4
25°	520.1	523.5	523.5	525.2	530.2	531.1	531.9	538.7	544.6	554.8	562.4
27.5°	509.9	513.3	513.3	515.8	519.2	520.9	520.9	526.8	532.8	540.4	546.3
30°	496.4	498.9	498.9	499.7	503.1	504.8	504.0	509.9	514.1	519.2	525.2
32.5°	473.5	477.7	476.0	478.6	480.3	482.0	480.3	485.3	488.7	493.8	495.5
35°	447.2	450.6	448.1	449.8	453.2	453.2	452.3	455.7	457.4	459.9	460.8
37.5°	416.7	419.3	417.6	418.4	420.1	421.0	419.3	422.7	422.7	423.5	421.8
40°	383.7	387.9	385.4	385.4	387.1	387.9	385.4	387.1	388.8	384.5	381.2
42.5°	354.9	359.1	356.6	356.6	356.6	357.4	354.1	354.9	354.9	349.0	343.9
45°	327.0	330.3	327.8	325.3	326.1	327.0	323.6	322.7	320.2	313.4	305.8
47.5°	299.8	303.2	299.8	298.2	298.2	298.2	293.9	291.4	288.0	278.7	269.4
50°	271.9	275.3	272.7	271.0	269.4	269.4	266.0	262.6	257.5	248.2	238.0
52.5°	243.1	245.6	243.1	241.4	239.7	239.7	235.5	232.9	227.0	217.7	206.7
55°	210.1	211.8	209.2	207.5	206.7	206.7	203.3	200.7	195.7	188.0	177.9
57.5°	166.0	169.4	165.2	166.9	166.9	166.0	163.5	162.6	160.9	154.2	146.5
60°	118.6	118.6	117.7	121.1	120.3	122.0	120.3	121.1	122.0	116.9	111.8
62.5°	77.9	80.5	78.8	80.5	82.2	82.2	81.3	83.0	84.7	82.2	79.6
65°	52.5	52.5	52.5	53.4	53.4	54.2	53.4	54.2	55.1	54.2	52.5
67.5°	34.7	35.6	34.7	35.6	34.7	35.6	35.6	35.6	36.4	35.6	34.7
70°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	23.7	22.9	22.0
72.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
75°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
77.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
80°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.4	4.2	3.4	3.4
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.8	1.7	0.8	0.8
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°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	630.2	627.6	640.3	629.3	635.3	634.4	635.3	640.3	640.3	642.9	642.0
5°	626.8	624.3	638.7	630.2	637.0	637.0	639.5	647.1	647.1	652.2	653.1
7.5°	621.7	622.6	637.8	632.7	640.3	641.2	645.4	654.7	657.3	664.1	667.5
10°	615.8	619.2	635.3	633.6	643.7	644.6	653.1	664.1	667.5	676.8	682.7
12.5°	613.2	619.2	637.8	639.5	649.7	653.9	663.2	677.6	683.5	694.6	703.0
15°	612.4	620.9	641.2	647.1	659.0	664.9	677.6	694.6	701.3	715.7	725.9
17.5°	608.2	619.2	641.2	650.5	663.2	669.1	685.2	704.7	713.2	729.3	741.1
20°	600.5	612.4	634.4	646.3	659.8	668.3	684.4	704.7	713.2	730.1	743.7
22.5°	590.4	602.2	623.4	637.0	648.8	658.1	675.1	694.6	702.2	718.3	731.8
25°	577.7	589.5	607.3	620.9	631.9	640.3	654.7	675.1	680.2	695.4	709.8
27.5°	559.9	570.9	584.4	597.1	607.3	614.1	626.8	644.6	648.8	664.1	675.9
30°	536.2	542.9	554.8	563.3	570.9	577.7	587.0	603.1	604.8	618.3	629.3
32.5°	504.0	507.4	515.8	520.1	526.8	529.4	537.0	550.6	548.9	561.6	570.9
35°	465.0	466.7	466.7	471.8	473.5	474.3	480.3	487.9	485.3	496.4	503.1
37.5°	422.7	421.8	416.7	416.7	417.6	415.0	417.6	421.0	417.6	426.1	432.0
40°	379.5	374.4	365.1	360.0	357.4	356.6	351.5	355.7	347.3	353.2	357.4
42.5°	338.0	329.5	315.1	304.9	300.7	296.5	288.0	288.0	277.0	281.2	282.1
45°	295.6	281.2	261.7	252.4	241.4	234.6	223.6	212.6	205.0	207.5	205.0
47.5°	256.6	239.7	216.8	200.7	188.0	178.7	163.5	150.8	143.1	139.8	136.4
50°	222.8	205.8	179.6	159.2	146.5	135.5	120.3	105.9	96.6	91.5	88.9
52.5°	192.3	174.5	149.1	127.9	114.3	104.2	87.2	72.8	62.7	56.8	53.4
55°	163.5	147.4	123.7	104.2	91.5	81.3	64.4	50.8	41.5	35.6	31.3
57.5°	134.7	120.3	100.8	82.2	71.1	61.8	47.4	35.6	28.0	22.9	19.5
60°	103.3	92.3	76.2	61.8	52.5	44.9	33.9	24.6	19.5	15.2	13.6
62.5°	72.8	66.1	54.2	44.0	38.1	32.2	23.7	17.8	13.6	11.0	10.2
65°	49.1	44.0	37.3	29.6	25.4	22.0	16.9	12.7	10.2	8.5	7.6
67.5°	32.2	29.6	24.6	20.3	17.8	15.2	11.9	9.3	7.6	6.8	5.9
70°	21.2	19.5	16.1	13.6	12.7	11.0	8.5	6.8	5.9	5.1	5.1
72.5°	13.6	11.9	11.0	9.3	8.5	7.6	5.9	5.1	4.2	4.2	4.2
75°	8.5	7.6	6.8	5.9	5.9	5.1	4.2	4.2	3.4	3.4	3.4
77.5°	5.1	5.1	4.2	4.2	3.4	3.4	3.4	2.5	2.5	2.5	2.5
80°	3.4	3.4	2.5	2.5	2.5	2.5	1.7	1.7	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	646.3	648.0	646.3	651.4	642.9	652.2	648.8	650.5	657.3	654.7	657.3
5°	659.0	662.4	662.4	668.3	660.7	671.7	668.3	671.7	678.5	678.5	681.9
7.5°	675.1	679.3	681.0	686.9	679.3	692.9	689.5	693.7	702.2	702.2	704.7
10°	692.0	697.1	700.5	707.3	698.8	714.0	710.7	716.6	724.2	725.1	729.3
12.5°	713.2	720.0	724.2	730.1	724.2	739.4	736.1	742.0	752.2	753.0	758.1
15°	736.9	745.4	750.5	757.2	750.5	767.4	764.0	770.8	778.4	781.8	786.9
17.5°	752.2	762.3	766.6	774.2	767.4	784.3	780.1	789.4	796.2	797.9	803.8
20°	754.7	764.0	769.9	775.9	769.9	786.9	782.6	790.3	798.7	800.4	804.7
22.5°	743.7	751.3	758.1	763.2	758.1	775.0	769.1	777.6	785.2	786.9	790.3
25°	718.3	727.6	734.4	738.6	733.5	749.6	744.5	752.2	758.9	762.3	763.2
27.5°	682.7	691.2	697.9	700.5	697.1	712.3	705.6	714.9	720.8	722.5	725.1
30°	634.4	642.0	648.8	650.5	648.0	659.0	655.6	664.1	670.0	671.7	673.4
32.5°	575.1	582.8	587.0	588.7	586.1	597.1	593.8	600.5	607.3	607.3	607.3
35°	508.2	515.0	517.5	522.6	516.7	527.7	524.3	530.2	536.2	536.2	537.0
37.5°	436.2	441.3	443.0	448.1	442.1	452.3	449.8	454.9	459.9	459.1	460.8
40°	359.1	364.2	365.9	370.1	365.1	373.5	371.8	376.9	381.2	381.2	381.2
42.5°	284.6	288.0	288.0	292.2	287.1	294.8	294.8	298.2	302.4	301.5	301.5
45°	206.7	205.8	207.5	206.7	206.7	213.4	213.4	215.1	218.5	216.8	217.7
47.5°	137.2	138.1	134.7	137.2	133.8	139.8	139.8	139.8	142.3	140.6	142.3
50°	87.2	84.7	83.0	83.0	82.2	86.4	84.7	85.5	87.2	85.5	87.2
52.5°	49.1	48.3	46.6	47.4	45.7	46.6	46.6	46.6	47.4	46.6	48.3
55°	28.8	26.3	25.4	25.4	24.6	25.4	24.6	24.6	24.6	23.7	24.6
57.5°	16.9	16.1	15.2	15.2	14.4	14.4	14.4	14.4	14.4	14.4	14.4
60°	11.9	11.0	11.0	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
62.5°	9.3	8.5	8.5	8.5	7.6	7.6	7.6	7.6	7.6	8.5	7.6
65°	6.8	6.8	6.8	6.8	6.8	6.8	5.9	6.8	6.8	6.8	6.8
67.5°	5.9	5.9	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
70°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
75°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	659.8	656.4	648.8	653.9	654.7	651.4	655.6	660.7	655.6	651.4	654.7
5°	684.4	681.9	675.1	679.3	680.2	679.3	681.9	686.1	681.9	679.3	680.2
7.5°	709.0	707.3	699.6	704.7	706.4	704.7	707.3	711.5	707.3	704.7	706.4
10°	732.7	731.8	724.2	731.0	731.8	730.1	732.7	739.4	732.7	730.1	731.8
12.5°	759.8	761.5	753.0	760.6	761.5	759.8	763.2	768.2	763.2	759.8	761.5
15°	791.1	790.3	783.5	789.4	791.1	789.4	793.7	800.4	793.7	789.4	791.1
17.5°	806.4	806.4	801.3	807.2	808.1	808.1	811.4	816.5	811.4	808.1	808.1
20°	807.2	808.1	802.1	808.9	808.9	808.9	812.3	814.8	812.3	808.9	808.9
22.5°	793.7	794.5	788.6	794.5	794.5	795.4	797.0	798.7	797.0	795.4	794.5
25°	767.4	768.2	763.2	768.2	767.4	767.4	769.1	771.6	769.1	767.4	767.4
27.5°	728.4	729.3	722.5	728.4	727.6	726.7	729.3	730.1	729.3	726.7	727.6
30°	676.8	677.6	671.7	676.8	675.9	675.1	678.5	679.3	678.5	675.1	675.9
32.5°	614.9	613.2	609.0	613.2	612.4	612.4	614.1	616.6	614.1	612.4	612.4
35°	540.4	540.4	537.9	541.2	538.7	542.1	542.1	542.9	542.1	542.1	538.7
37.5°	464.2	464.2	462.5	464.2	463.3	466.7	466.7	469.2	466.7	466.7	463.3
40°	384.5	384.5	382.9	384.5	387.1	387.1	386.2	389.6	386.2	387.1	387.1
42.5°	304.1	304.1	303.2	307.5	307.5	307.5	304.9	308.3	304.9	307.5	307.5
45°	221.1	219.4	218.5	218.5	219.4	222.8	219.4	223.6	219.4	222.8	219.4
47.5°	140.6	141.5	142.3	144.8	143.1	142.3	142.3	144.8	142.3	142.3	143.1
50°	86.4	87.2	87.2	88.9	86.4	88.1	87.2	88.9	87.2	88.1	86.4
52.5°	47.4	47.4	47.4	49.1	47.4	48.3	47.4	49.1	47.4	48.3	47.4
55°	24.6	24.6	24.6	25.4	24.6	24.6	24.6	25.4	24.6	24.6	24.6
57.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
60°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
62.5°	8.5	7.6	7.6	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
65°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
67.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
70°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
75°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



TEST NUMBER: P212714

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**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	653.9	648.8	656.4	659.8	657.3	654.7	657.3	650.5	648.8	652.2	642.9
5°	679.3	675.1	681.9	684.4	681.9	678.5	678.5	671.7	668.3	671.7	660.7
7.5°	704.7	699.6	707.3	709.0	704.7	702.2	702.2	693.7	689.5	692.9	679.3
10°	731.0	724.2	731.8	732.7	729.3	725.1	724.2	716.6	710.7	714.0	698.8
12.5°	760.6	753.0	761.5	759.8	758.1	753.0	752.2	742.0	736.1	739.4	724.2
15°	789.4	783.5	790.3	791.1	786.9	781.8	778.4	770.8	764.0	767.4	750.5
17.5°	807.2	801.3	806.4	806.4	803.8	797.9	796.2	789.4	780.1	784.3	767.4
20°	808.9	802.1	808.1	807.2	804.7	800.4	798.7	790.3	782.6	786.9	769.9
22.5°	794.5	788.6	794.5	793.7	790.3	786.9	785.2	777.6	769.1	775.0	758.1
25°	768.2	763.2	768.2	767.4	763.2	762.3	758.9	752.2	744.5	749.6	733.5
27.5°	728.4	722.5	729.3	728.4	725.1	722.5	720.8	714.9	705.6	712.3	697.1
30°	676.8	671.7	677.6	676.8	673.4	671.7	670.0	664.1	655.6	659.0	648.0
32.5°	613.2	609.0	613.2	614.9	607.3	607.3	607.3	600.5	593.8	597.1	586.1
35°	541.2	537.9	540.4	540.4	537.0	536.2	536.2	530.2	524.3	527.7	516.7
37.5°	464.2	462.5	464.2	464.2	460.8	459.1	459.9	454.9	449.8	452.3	442.1
40°	384.5	382.9	384.5	384.5	381.2	381.2	381.2	376.9	371.8	373.5	365.1
42.5°	307.5	303.2	304.1	304.1	301.5	301.5	302.4	298.2	294.8	294.8	287.1
45°	218.5	218.5	219.4	221.1	217.7	216.8	218.5	215.1	213.4	213.4	206.7
47.5°	144.8	142.3	141.5	140.6	142.3	140.6	142.3	139.8	139.8	139.8	133.8
50°	88.9	87.2	87.2	86.4	87.2	85.5	87.2	85.5	84.7	86.4	82.2
52.5°	49.1	47.4	47.4	47.4	48.3	46.6	47.4	46.6	46.6	46.6	45.7
55°	25.4	24.6	24.6	24.6	24.6	23.7	24.6	24.6	24.6	25.4	24.6
57.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
60°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
62.5°	8.5	7.6	7.6	8.5	7.6	8.5	7.6	7.6	7.6	7.6	7.6
65°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	5.9	6.8	6.8
67.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
70°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
75°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	651.4	646.3	648.0	646.3	642.0	642.9	640.3	640.3	635.3	634.4	635.3
5°	668.3	662.4	662.4	659.0	653.1	652.2	647.1	647.1	639.5	637.0	637.0
7.5°	686.9	681.0	679.3	675.1	667.5	664.1	657.3	654.7	645.4	641.2	640.3
10°	707.3	700.5	697.1	692.0	682.7	676.8	667.5	664.1	653.1	644.6	643.7
12.5°	730.1	724.2	720.0	713.2	703.0	694.6	683.5	677.6	663.2	653.9	649.7
15°	757.2	750.5	745.4	736.9	725.9	715.7	701.3	694.6	677.6	664.9	659.0
17.5°	774.2	766.6	762.3	752.2	741.1	729.3	713.2	704.7	685.2	669.1	663.2
20°	775.9	769.9	764.0	754.7	743.7	730.1	713.2	704.7	684.4	668.3	659.8
22.5°	763.2	758.1	751.3	743.7	731.8	718.3	702.2	694.6	675.1	658.1	648.8
25°	738.6	734.4	727.6	718.3	709.8	695.4	680.2	675.1	654.7	640.3	631.9
27.5°	700.5	697.9	691.2	682.7	675.9	664.1	648.8	644.6	626.8	614.1	607.3
30°	650.5	648.8	642.0	634.4	629.3	618.3	604.8	603.1	587.0	577.7	570.9
32.5°	588.7	587.0	582.8	575.1	570.9	561.6	548.9	550.6	537.0	529.4	526.8
35°	522.6	517.5	515.0	508.2	503.1	496.4	485.3	487.9	480.3	474.3	473.5
37.5°	448.1	443.0	441.3	436.2	432.0	426.1	417.6	421.0	417.6	415.0	417.6
40°	370.1	365.9	364.2	359.1	357.4	353.2	347.3	355.7	351.5	356.6	357.4
42.5°	292.2	288.0	288.0	284.6	282.1	281.2	277.0	288.0	288.0	296.5	300.7
45°	206.7	207.5	205.8	206.7	205.0	207.5	205.0	212.6	223.6	234.6	241.4
47.5°	137.2	134.7	138.1	137.2	136.4	139.8	143.1	150.8	163.5	178.7	188.0
50°	83.0	83.0	84.7	87.2	88.9	91.5	96.6	105.9	120.3	135.5	146.5
52.5°	47.4	46.6	48.3	49.1	53.4	56.8	62.7	72.8	87.2	104.2	114.3
55°	25.4	25.4	26.3	28.8	31.3	35.6	41.5	50.8	64.4	81.3	91.5
57.5°	15.2	15.2	16.1	16.9	19.5	22.9	28.0	35.6	47.4	61.8	71.1
60°	10.2	11.0	11.0	11.9	13.6	15.2	19.5	24.6	33.9	44.9	52.5
62.5°	8.5	8.5	8.5	9.3	10.2	11.0	13.6	17.8	23.7	32.2	38.1
65°	6.8	6.8	6.8	6.8	7.6	8.5	10.2	12.7	16.9	22.0	25.4
67.5°	5.1	5.1	5.9	5.9	5.9	6.8	7.6	9.3	11.9	15.2	17.8
70°	4.2	4.2	4.2	4.2	5.1	5.1	5.9	6.8	8.5	11.0	12.7
72.5°	3.4	3.4	3.4	3.4	4.2	4.2	4.2	5.1	5.9	7.6	8.5
75°	2.5	2.5	2.5	2.5	3.4	3.4	3.4	4.2	4.2	5.1	5.9
77.5°	1.7	1.7	1.7	1.7	2.5	2.5	2.5	2.5	3.4	3.4	3.4
80°	0.8	0.8	0.8	1.7	1.7	1.7	1.7	1.7	1.7	2.5	2.5
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	1.7
85°	0.0	0.0	0.8	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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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CATALOG NUMBER: LD4B15D010 EU4B10209040 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2	641.2
2.5°	629.3	640.3	627.6	630.2	625.9	633.6	623.4	625.9	627.6	625.9	626.8
5°	630.2	638.7	624.3	626.8	620.0	625.1	615.8	616.6	616.6	614.9	614.1
7.5°	632.7	637.8	622.6	621.7	613.2	618.3	607.3	605.6	604.8	602.2	603.1
10°	633.6	635.3	619.2	615.8	605.6	607.3	596.3	592.9	590.4	588.7	587.8
12.5°	639.5	637.8	619.2	613.2	600.5	599.7	587.8	582.8	578.5	576.8	576.0
15°	647.1	641.2	620.9	612.4	598.0	594.6	581.9	576.8	570.9	569.2	567.5
17.5°	650.5	641.2	619.2	608.2	592.1	587.8	575.1	568.4	562.4	559.9	558.2
20°	646.3	634.4	612.4	600.5	583.6	577.7	565.0	557.3	551.4	548.9	547.2
22.5°	637.0	623.4	602.2	590.4	573.4	565.8	554.8	548.0	541.2	540.4	537.9
25°	620.9	607.3	589.5	577.7	562.4	554.8	544.6	538.7	531.9	531.1	530.2
27.5°	597.1	584.4	570.9	559.9	546.3	540.4	532.8	526.8	520.9	520.9	519.2
30°	563.3	554.8	542.9	536.2	525.2	519.2	514.1	509.9	504.0	504.8	503.1
32.5°	520.1	515.8	507.4	504.0	495.5	493.8	488.7	485.3	480.3	482.0	480.3
35°	471.8	466.7	466.7	465.0	460.8	459.9	457.4	455.7	452.3	453.2	453.2
37.5°	416.7	416.7	421.8	422.7	421.8	423.5	422.7	422.7	419.3	421.0	420.1
40°	360.0	365.1	374.4	379.5	381.2	384.5	388.8	387.1	385.4	387.9	387.1
42.5°	304.9	315.1	329.5	338.0	343.9	349.0	354.9	354.9	354.1	357.4	356.6
45°	252.4	261.7	281.2	295.6	305.8	313.4	320.2	322.7	323.6	327.0	326.1
47.5°	200.7	216.8	239.7	256.6	269.4	278.7	288.0	291.4	293.9	298.2	298.2
50°	159.2	179.6	205.8	222.8	238.0	248.2	257.5	262.6	266.0	269.4	269.4
52.5°	127.9	149.1	174.5	192.3	206.7	217.7	227.0	232.9	235.5	239.7	239.7
55°	104.2	123.7	147.4	163.5	177.9	188.0	195.7	200.7	203.3	206.7	206.7
57.5°	82.2	100.8	120.3	134.7	146.5	154.2	160.9	162.6	163.5	166.0	166.9
60°	61.8	76.2	92.3	103.3	111.8	116.9	122.0	121.1	120.3	122.0	120.3
62.5°	44.0	54.2	66.1	72.8	79.6	82.2	84.7	83.0	81.3	82.2	82.2
65°	29.6	37.3	44.0	49.1	52.5	54.2	55.1	54.2	53.4	54.2	53.4
67.5°	20.3	24.6	29.6	32.2	34.7	35.6	36.4	35.6	35.6	35.6	34.7
70°	13.6	16.1	19.5	21.2	22.0	22.9	23.7	22.9	22.9	22.9	22.9
72.5°	9.3	11.0	11.9	13.6	14.4	14.4	14.4	14.4	14.4	14.4	14.4
75°	5.9	6.8	7.6	8.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3
77.5°	4.2	4.2	5.1	5.1	5.9	5.9	5.9	5.9	5.9	5.9	5.9
80°	2.5	2.5	3.4	3.4	3.4	3.4	4.2	3.4	4.2	4.2	4.2
82.5°	1.7	1.7	1.7	1.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5
85°	0.8	0.8	0.8	0.8	0.8	0.8	1.7	0.8	1.7	1.7	1.7
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



TEST NUMBER: P212714

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**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	641.2	641.2	641.2	641.2
2.5°	626.8	625.1	620.0	625.9
5°	613.2	611.5	607.3	611.5
7.5°	599.7	597.1	593.8	596.3
10°	583.6	581.9	577.7	580.2
12.5°	571.7	568.4	565.8	566.7
15°	564.1	560.7	558.2	559.0
17.5°	554.0	550.6	548.0	548.0
20°	542.9	539.6	537.9	537.0
22.5°	533.6	531.1	530.2	527.7
25°	525.2	523.5	523.5	520.1
27.5°	515.8	513.3	513.3	509.9
30°	499.7	498.9	498.9	496.4
32.5°	478.6	476.0	477.7	473.5
35°	449.8	448.1	450.6	447.2
37.5°	418.4	417.6	419.3	416.7
40°	385.4	385.4	387.9	383.7
42.5°	356.6	356.6	359.1	354.9
45°	325.3	327.8	330.3	327.0
47.5°	298.2	299.8	303.2	299.8
50°	271.0	272.7	275.3	271.9
52.5°	241.4	243.1	245.6	243.1
55°	207.5	209.2	211.8	210.1
57.5°	166.9	165.2	169.4	166.0
60°	121.1	117.7	118.6	118.6
62.5°	80.5	78.8	80.5	77.9
65°	53.4	52.5	52.5	52.5
67.5°	35.6	34.7	35.6	34.7
70°	22.9	22.9	22.9	22.9
72.5°	14.4	14.4	14.4	14.4
75°	9.3	9.3	9.3	9.3
77.5°	5.9	5.9	5.9	5.9
80°	4.2	4.2	4.2	4.2
82.5°	2.5	2.5	2.5	2.5
85°	1.7	1.7	1.7	1.7
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°

























(END OF REPORT)