

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: P212698

Luminaire Tested: **LD4B10D010 EU4B10209027 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212698
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: LD4B10D010 EU4B10209027 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 800.2 lumens
Efficiency: N/A
Efficacy: 79.6 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

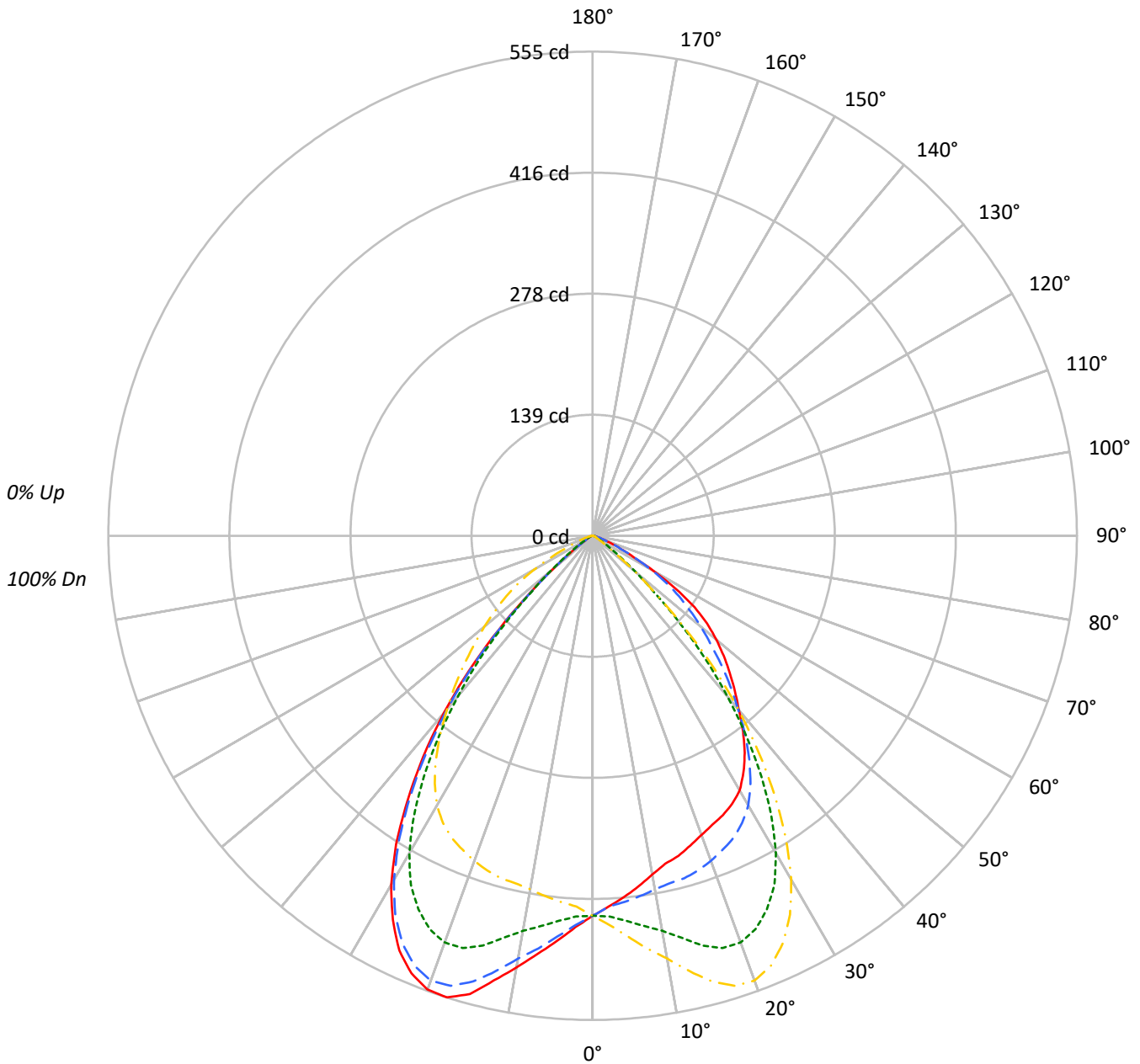
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWL11

Luminous Intensity Polar Plot





TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

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°	53729	53729	53729	53729
5°	51446	54863	57711	54863
10°	49373	57589	62925	57589
15°	48499	62099	69442	62099
20°	47897	65119	72666	65119
25°	48083	64306	71356	64306
30°	48026	59834	65730	59834
35°	45760	50775	55548	50775
40°	41977	38644	42621	38644
45°	38742	24596	26497	24596
50°	35442	11936	11590	11936
55°	30687	5204	3720	5204
60°	19883	2566	1702	2566
65°	10419	1693	1343	1693
70°	5590	1262	1046	1262
75°	3002	1096	810	1096
80°	2060	852	426	852
85°	1698	849	0	849



TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.5	5.3
10°-20°	132.9	16.6
20°-30°	206.6	25.8
30°-40°	208.6	26.1
40°-50°	132.1	16.5
50°-60°	55.4	6.9
60°-70°	17.6	2.2
70°-80°	4.0	0.5
80°-90°	0.6	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°	381.9	47.7
0°-40°	590.5	73.8
0°-60°	778.1	97.2
0°-90°	800.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	800.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	436	436	436	436	436	
5°	416	443	466	443	416	39
15°	380	486	544	486	380	107
25°	353	472	524	472	353	163
35°	304	337	369	337	304	189
45°	222	141	152	141	222	171
55°	143	24	17	24	143	123
65°	36	6	5	6	36	39
75°	6	2	2	2	6	8
85°	1	1	0	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	425.3	421.2	424.7	425.9	425.9	425.3	426.4	425.3	423.6	430.5	425.3
5°	415.5	412.6	415.5	416.6	417.2	417.8	418.9	418.9	418.4	424.7	421.2
7.5°	405.1	403.4	405.7	407.4	409.7	409.2	410.9	411.5	412.6	420.1	416.6
10°	394.2	392.5	395.4	396.5	399.4	400.0	401.1	402.8	405.1	412.6	411.5
12.5°	385.0	384.4	386.1	388.4	391.3	391.9	393.1	395.9	399.4	407.4	408.0
15°	379.8	379.2	381.0	383.3	385.6	386.7	387.9	391.9	395.4	404.0	406.3
17.5°	372.3	372.3	374.1	376.4	379.2	380.4	382.1	386.1	390.7	399.4	402.3
20°	364.9	365.4	366.6	368.9	371.8	372.9	374.6	378.7	383.8	392.5	396.5
22.5°	358.5	360.2	360.8	362.5	365.4	367.2	367.7	372.3	376.9	384.4	389.6
25°	353.3	355.6	355.6	356.8	360.2	360.8	361.4	366.0	370.0	376.9	382.1
27.5°	346.4	348.7	348.7	350.5	352.8	353.9	353.9	357.9	362.0	367.2	371.2
30°	337.2	339.0	339.0	339.5	341.8	343.0	342.4	346.4	349.3	352.8	356.8
32.5°	321.7	324.6	323.4	325.1	326.3	327.4	326.3	329.7	332.0	335.5	336.7
35°	303.9	306.2	304.4	305.6	307.9	307.9	307.3	309.6	310.8	312.5	313.1
37.5°	283.1	284.9	283.7	284.3	285.4	286.0	284.9	287.2	287.2	287.7	286.6
40°	260.7	263.6	261.8	261.8	263.0	263.6	261.8	263.0	264.1	261.3	259.0
42.5°	241.1	244.0	242.3	242.3	242.3	242.9	240.5	241.1	241.1	237.1	233.6
45°	222.1	224.4	222.7	221.0	221.6	222.1	219.8	219.3	217.5	212.9	207.7
47.5°	203.7	206.0	203.7	202.6	202.6	202.6	199.7	198.0	195.7	189.3	183.0
50°	184.7	187.0	185.3	184.2	183.0	183.0	180.7	178.4	174.9	168.6	161.7
52.5°	165.2	166.9	165.2	164.0	162.9	162.9	160.0	158.3	154.2	147.9	140.4
55°	142.7	143.9	142.1	141.0	140.4	140.4	138.1	136.4	132.9	127.8	120.8
57.5°	112.8	115.1	112.2	113.4	113.4	112.8	111.1	110.5	109.3	104.7	99.6
60°	80.6	80.6	80.0	82.3	81.7	82.9	81.7	82.3	82.9	79.4	76.0
62.5°	52.9	54.7	53.5	54.7	55.8	55.8	55.2	56.4	57.5	55.8	54.1
65°	35.7	35.7	35.7	36.3	36.3	36.8	36.3	36.8	37.4	36.8	35.7
67.5°	23.6	24.2	23.6	24.2	23.6	24.2	24.2	24.2	24.7	24.2	23.6
70°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	16.1	15.5	15.0
72.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
75°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.3	2.9	2.3	2.3
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	1.2	0.6	0.6
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



TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	428.2	426.4	435.1	427.6	431.6	431.0	431.6	435.1	435.1	436.8	436.2
5°	425.9	424.1	433.9	428.2	432.8	432.8	434.5	439.7	439.7	443.1	443.7
7.5°	422.4	423.0	433.3	429.9	435.1	435.6	438.5	444.8	446.6	451.2	453.5
10°	418.4	420.7	431.6	430.5	437.4	437.9	443.7	451.2	453.5	459.8	463.8
12.5°	416.6	420.7	433.3	434.5	441.4	444.3	450.6	460.4	464.4	471.9	477.6
15°	416.1	421.8	435.6	439.7	447.7	451.7	460.4	471.9	476.5	486.3	493.2
17.5°	413.2	420.7	435.6	442.0	450.6	454.6	465.6	478.8	484.6	495.5	503.5
20°	408.0	416.1	431.0	439.1	448.3	454.1	465.0	478.8	484.6	496.1	505.3
22.5°	401.1	409.2	423.6	432.8	440.8	447.1	458.7	471.9	477.1	488.0	497.2
25°	392.5	400.5	412.6	421.8	429.3	435.1	444.8	458.7	462.1	472.5	482.2
27.5°	380.4	387.9	397.1	405.7	412.6	417.2	425.9	437.9	440.8	451.2	459.2
30°	364.3	368.9	376.9	382.7	387.9	392.5	398.8	409.7	410.9	420.1	427.6
32.5°	342.4	344.7	350.5	353.3	357.9	359.7	364.9	374.1	372.9	381.5	387.9
35°	315.9	317.1	317.1	320.5	321.7	322.3	326.3	331.5	329.7	337.2	341.8
37.5°	287.2	286.6	283.1	283.1	283.7	282.0	283.7	286.0	283.7	289.5	293.5
40°	257.8	254.4	248.0	244.6	242.9	242.3	238.8	241.7	235.9	240.0	242.9
42.5°	229.6	223.9	214.1	207.2	204.3	201.4	195.7	195.7	188.2	191.1	191.6
45°	200.8	191.1	177.8	171.5	164.0	159.4	151.9	144.4	139.3	141.0	139.3
47.5°	174.4	162.9	147.3	136.4	127.8	121.4	111.1	102.4	97.3	95.0	92.7
50°	151.4	139.8	122.0	108.2	99.6	92.1	81.7	71.9	65.6	62.2	60.4
52.5°	130.6	118.5	101.3	86.9	77.7	70.8	59.3	49.5	42.6	38.6	36.3
55°	111.1	100.1	84.0	70.8	62.2	55.2	43.7	34.5	28.2	24.2	21.3
57.5°	91.5	81.7	68.5	55.8	48.3	42.0	32.2	24.2	19.0	15.5	13.2
60°	70.2	62.7	51.8	42.0	35.7	30.5	23.0	16.7	13.2	10.4	9.2
62.5°	49.5	44.9	36.8	29.9	25.9	21.9	16.1	12.1	9.2	7.5	6.9
65°	33.4	29.9	25.3	20.1	17.3	15.0	11.5	8.6	6.9	5.8	5.2
67.5°	21.9	20.1	16.7	13.8	12.1	10.4	8.1	6.3	5.2	4.6	4.0
70°	14.4	13.2	10.9	9.2	8.6	7.5	5.8	4.6	4.0	3.5	3.5
72.5°	9.2	8.1	7.5	6.3	5.8	5.2	4.0	3.5	2.9	2.9	2.9
75°	5.8	5.2	4.6	4.0	4.0	3.5	2.9	2.9	2.3	2.3	2.3
77.5°	3.5	3.5	2.9	2.9	2.3	2.3	2.3	1.7	1.7	1.7	1.7
80°	2.3	2.3	1.7	1.7	1.7	1.7	1.2	1.2	1.2	1.2	1.2
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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



TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	439.1	440.2	439.1	442.5	436.8	443.1	440.8	442.0	446.6	444.8	446.6
5°	447.7	450.0	450.0	454.1	448.9	456.4	454.1	456.4	461.0	461.0	463.3
7.5°	458.7	461.5	462.7	466.7	461.5	470.7	468.4	471.3	477.1	477.1	478.8
10°	470.2	473.6	475.9	480.5	474.8	485.1	482.8	486.9	492.0	492.6	495.5
12.5°	484.6	489.2	492.0	496.1	492.0	502.4	500.1	504.1	511.0	511.6	515.1
15°	500.7	506.4	509.9	514.5	509.9	521.4	519.1	523.7	528.9	531.2	534.6
17.5°	511.0	517.9	520.8	526.0	521.4	532.9	530.0	536.3	540.9	542.1	546.1
20°	512.7	519.1	523.1	527.1	523.1	534.6	531.7	536.9	542.7	543.8	546.7
22.5°	505.3	510.4	515.1	518.5	515.1	526.6	522.5	528.3	533.5	534.6	536.9
25°	488.0	494.3	498.9	501.8	498.4	509.3	505.8	511.0	515.6	517.9	518.5
27.5°	463.8	469.6	474.2	475.9	473.6	484.0	479.4	485.7	489.7	490.9	492.6
30°	431.0	436.2	440.8	442.0	440.2	447.7	445.4	451.2	455.2	456.4	457.5
32.5°	390.7	395.9	398.8	400.0	398.2	405.7	403.4	408.0	412.6	412.6	412.6
35°	345.3	349.9	351.6	355.1	351.0	358.5	356.2	360.2	364.3	364.3	364.9
37.5°	296.4	299.8	301.0	304.4	300.4	307.3	305.6	309.0	312.5	311.9	313.1
40°	244.0	247.5	248.6	251.5	248.0	253.8	252.6	256.1	259.0	259.0	259.0
42.5°	193.4	195.7	195.7	198.5	195.1	200.3	200.3	202.6	205.4	204.9	204.9
45°	140.4	139.8	141.0	140.4	140.4	145.0	145.0	146.2	148.5	147.3	147.9
47.5°	93.2	93.8	91.5	93.2	90.9	95.0	95.0	95.0	96.7	95.5	96.7
50°	59.3	57.5	56.4	56.4	55.8	58.7	57.5	58.1	59.3	58.1	59.3
52.5°	33.4	32.8	31.7	32.2	31.1	31.7	31.7	31.7	32.2	31.7	32.8
55°	19.6	17.8	17.3	17.3	16.7	17.3	16.7	16.7	16.7	16.1	16.7
57.5°	11.5	10.9	10.4	10.4	9.8	9.8	9.8	9.8	9.8	9.8	9.8
60°	8.1	7.5	7.5	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
62.5°	6.3	5.8	5.8	5.8	5.2	5.2	5.2	5.2	5.2	5.8	5.2
65°	4.6	4.6	4.6	4.6	4.6	4.6	4.0	4.6	4.6	4.6	4.6
67.5°	4.0	4.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
85°	0.0	0.6	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: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	448.3	446.0	440.8	444.3	444.8	442.5	445.4	448.9	445.4	442.5	444.8
5°	465.0	463.3	458.7	461.5	462.1	461.5	463.3	466.1	463.3	461.5	462.1
7.5°	481.7	480.5	475.3	478.8	479.9	478.8	480.5	483.4	480.5	478.8	479.9
10°	497.8	497.2	492.0	496.6	497.2	496.1	497.8	502.4	497.8	496.1	497.2
12.5°	516.2	517.4	511.6	516.8	517.4	516.2	518.5	522.0	518.5	516.2	517.4
15°	537.5	536.9	532.3	536.3	537.5	536.3	539.2	543.8	539.2	536.3	537.5
17.5°	547.9	547.9	544.4	548.4	549.0	549.0	551.3	554.8	551.3	549.0	549.0
20°	548.4	549.0	545.0	549.6	549.6	549.6	551.9	553.6	551.9	549.6	549.6
22.5°	539.2	539.8	535.8	539.8	539.8	540.4	541.5	542.7	541.5	540.4	539.8
25°	521.4	522.0	518.5	522.0	521.4	521.4	522.5	524.3	522.5	521.4	521.4
27.5°	494.9	495.5	490.9	494.9	494.3	493.8	495.5	496.1	495.5	493.8	494.3
30°	459.8	460.4	456.4	459.8	459.2	458.7	461.0	461.5	461.0	458.7	459.2
32.5°	417.8	416.6	413.8	416.6	416.1	416.1	417.2	418.9	417.2	416.1	416.1
35°	367.2	367.2	365.4	367.7	366.0	368.3	368.3	368.9	368.3	368.3	366.0
37.5°	315.4	315.4	314.2	315.4	314.8	317.1	317.1	318.8	317.1	317.1	314.8
40°	261.3	261.3	260.1	261.3	263.0	263.0	262.4	264.7	262.4	263.0	263.0
42.5°	206.6	206.6	206.0	208.9	208.9	208.9	207.2	209.5	207.2	208.9	208.9
45°	150.2	149.0	148.5	148.5	149.0	151.4	149.0	151.9	149.0	151.4	149.0
47.5°	95.5	96.1	96.7	98.4	97.3	96.7	96.7	98.4	96.7	96.7	97.3
50°	58.7	59.3	59.3	60.4	58.7	59.8	59.3	60.4	59.3	59.8	58.7
52.5°	32.2	32.2	32.2	33.4	32.2	32.8	32.2	33.4	32.2	32.8	32.2
55°	16.7	16.7	16.7	17.3	16.7	16.7	16.7	17.3	16.7	16.7	16.7
57.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
60°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
62.5°	5.8	5.2	5.2	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
65°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
67.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	444.3	440.8	446.0	448.3	446.6	444.8	446.6	442.0	440.8	443.1	436.8
5°	461.5	458.7	463.3	465.0	463.3	461.0	461.0	456.4	454.1	456.4	448.9
7.5°	478.8	475.3	480.5	481.7	478.8	477.1	477.1	471.3	468.4	470.7	461.5
10°	496.6	492.0	497.2	497.8	495.5	492.6	492.0	486.9	482.8	485.1	474.8
12.5°	516.8	511.6	517.4	516.2	515.1	511.6	511.0	504.1	500.1	502.4	492.0
15°	536.3	532.3	536.9	537.5	534.6	531.2	528.9	523.7	519.1	521.4	509.9
17.5°	548.4	544.4	547.9	547.9	546.1	542.1	540.9	536.3	530.0	532.9	521.4
20°	549.6	545.0	549.0	548.4	546.7	543.8	542.7	536.9	531.7	534.6	523.1
22.5°	539.8	535.8	539.8	539.2	536.9	534.6	533.5	528.3	522.5	526.6	515.1
25°	522.0	518.5	522.0	521.4	518.5	517.9	515.6	511.0	505.8	509.3	498.4
27.5°	494.9	490.9	495.5	494.9	492.6	490.9	489.7	485.7	479.4	484.0	473.6
30°	459.8	456.4	460.4	459.8	457.5	456.4	455.2	451.2	445.4	447.7	440.2
32.5°	416.6	413.8	416.6	417.8	412.6	412.6	412.6	408.0	403.4	405.7	398.2
35°	367.7	365.4	367.2	367.2	364.9	364.3	364.3	360.2	356.2	358.5	351.0
37.5°	315.4	314.2	315.4	315.4	313.1	311.9	312.5	309.0	305.6	307.3	300.4
40°	261.3	260.1	261.3	261.3	259.0	259.0	259.0	256.1	252.6	253.8	248.0
42.5°	208.9	206.0	206.6	206.6	204.9	204.9	205.4	202.6	200.3	200.3	195.1
45°	148.5	148.5	149.0	150.2	147.9	147.3	148.5	146.2	145.0	145.0	140.4
47.5°	98.4	96.7	96.1	95.5	96.7	95.5	96.7	95.0	95.0	95.0	90.9
50°	60.4	59.3	59.3	58.7	59.3	58.1	59.3	58.1	57.5	58.7	55.8
52.5°	33.4	32.2	32.2	32.2	32.8	31.7	32.2	31.7	31.7	31.7	31.1
55°	17.3	16.7	16.7	16.7	16.7	16.1	16.7	16.7	16.7	17.3	16.7
57.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
60°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
62.5°	5.8	5.2	5.2	5.8	5.2	5.8	5.2	5.2	5.2	5.2	5.2
65°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.0	4.6	4.6
67.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	442.5	439.1	440.2	439.1	436.2	436.8	435.1	435.1	431.6	431.0	431.6
5°	454.1	450.0	450.0	447.7	443.7	443.1	439.7	439.7	434.5	432.8	432.8
7.5°	466.7	462.7	461.5	458.7	453.5	451.2	446.6	444.8	438.5	435.6	435.1
10°	480.5	475.9	473.6	470.2	463.8	459.8	453.5	451.2	443.7	437.9	437.4
12.5°	496.1	492.0	489.2	484.6	477.6	471.9	464.4	460.4	450.6	444.3	441.4
15°	514.5	509.9	506.4	500.7	493.2	486.3	476.5	471.9	460.4	451.7	447.7
17.5°	526.0	520.8	517.9	511.0	503.5	495.5	484.6	478.8	465.6	454.6	450.6
20°	527.1	523.1	519.1	512.7	505.3	496.1	484.6	478.8	465.0	454.1	448.3
22.5°	518.5	515.1	510.4	505.3	497.2	488.0	477.1	471.9	458.7	447.1	440.8
25°	501.8	498.9	494.3	488.0	482.2	472.5	462.1	458.7	444.8	435.1	429.3
27.5°	475.9	474.2	469.6	463.8	459.2	451.2	440.8	437.9	425.9	417.2	412.6
30°	442.0	440.8	436.2	431.0	427.6	420.1	410.9	409.7	398.8	392.5	387.9
32.5°	400.0	398.8	395.9	390.7	387.9	381.5	372.9	374.1	364.9	359.7	357.9
35°	355.1	351.6	349.9	345.3	341.8	337.2	329.7	331.5	326.3	322.3	321.7
37.5°	304.4	301.0	299.8	296.4	293.5	289.5	283.7	286.0	283.7	282.0	283.7
40°	251.5	248.6	247.5	244.0	242.9	240.0	235.9	241.7	238.8	242.3	242.9
42.5°	198.5	195.7	195.7	193.4	191.6	191.1	188.2	195.7	195.7	201.4	204.3
45°	140.4	141.0	139.8	140.4	139.3	141.0	139.3	144.4	151.9	159.4	164.0
47.5°	93.2	91.5	93.8	93.2	92.7	95.0	97.3	102.4	111.1	121.4	127.8
50°	56.4	56.4	57.5	59.3	60.4	62.2	65.6	71.9	81.7	92.1	99.6
52.5°	32.2	31.7	32.8	33.4	36.3	38.6	42.6	49.5	59.3	70.8	77.7
55°	17.3	17.3	17.8	19.6	21.3	24.2	28.2	34.5	43.7	55.2	62.2
57.5°	10.4	10.4	10.9	11.5	13.2	15.5	19.0	24.2	32.2	42.0	48.3
60°	6.9	7.5	7.5	8.1	9.2	10.4	13.2	16.7	23.0	30.5	35.7
62.5°	5.8	5.8	5.8	6.3	6.9	7.5	9.2	12.1	16.1	21.9	25.9
65°	4.6	4.6	4.6	4.6	5.2	5.8	6.9	8.6	11.5	15.0	17.3
67.5°	3.5	3.5	4.0	4.0	4.0	4.6	5.2	6.3	8.1	10.4	12.1
70°	2.9	2.9	2.9	2.9	3.5	3.5	4.0	4.6	5.8	7.5	8.6
72.5°	2.3	2.3	2.3	2.3	2.9	2.9	2.9	3.5	4.0	5.2	5.8
75°	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.9	2.9	3.5	4.0
77.5°	1.2	1.2	1.2	1.2	1.7	1.7	1.7	1.7	2.3	2.3	2.3
80°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.7	1.7
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2	1.2
85°	0.0	0.0	0.6	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6
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



TEST NUMBER: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6	435.6
2.5°	427.6	435.1	426.4	428.2	425.3	430.5	423.6	425.3	426.4	425.3	425.9
5°	428.2	433.9	424.1	425.9	421.2	424.7	418.4	418.9	418.9	417.8	417.2
7.5°	429.9	433.3	423.0	422.4	416.6	420.1	412.6	411.5	410.9	409.2	409.7
10°	430.5	431.6	420.7	418.4	411.5	412.6	405.1	402.8	401.1	400.0	399.4
12.5°	434.5	433.3	420.7	416.6	408.0	407.4	399.4	395.9	393.1	391.9	391.3
15°	439.7	435.6	421.8	416.1	406.3	404.0	395.4	391.9	387.9	386.7	385.6
17.5°	442.0	435.6	420.7	413.2	402.3	399.4	390.7	386.1	382.1	380.4	379.2
20°	439.1	431.0	416.1	408.0	396.5	392.5	383.8	378.7	374.6	372.9	371.8
22.5°	432.8	423.6	409.2	401.1	389.6	384.4	376.9	372.3	367.7	367.2	365.4
25°	421.8	412.6	400.5	392.5	382.1	376.9	370.0	366.0	361.4	360.8	360.2
27.5°	405.7	397.1	387.9	380.4	371.2	367.2	362.0	357.9	353.9	353.9	352.8
30°	382.7	376.9	368.9	364.3	356.8	352.8	349.3	346.4	342.4	343.0	341.8
32.5°	353.3	350.5	344.7	342.4	336.7	335.5	332.0	329.7	326.3	327.4	326.3
35°	320.5	317.1	317.1	315.9	313.1	312.5	310.8	309.6	307.3	307.9	307.9
37.5°	283.1	283.1	286.6	287.2	286.6	287.7	287.2	287.2	284.9	286.0	285.4
40°	244.6	248.0	254.4	257.8	259.0	261.3	264.1	263.0	261.8	263.6	263.0
42.5°	207.2	214.1	223.9	229.6	233.6	237.1	241.1	241.1	240.5	242.9	242.3
45°	171.5	177.8	191.1	200.8	207.7	212.9	217.5	219.3	219.8	222.1	221.6
47.5°	136.4	147.3	162.9	174.4	183.0	189.3	195.7	198.0	199.7	202.6	202.6
50°	108.2	122.0	139.8	151.4	161.7	168.6	174.9	178.4	180.7	183.0	183.0
52.5°	86.9	101.3	118.5	130.6	140.4	147.9	154.2	158.3	160.0	162.9	162.9
55°	70.8	84.0	100.1	111.1	120.8	127.8	132.9	136.4	138.1	140.4	140.4
57.5°	55.8	68.5	81.7	91.5	99.6	104.7	109.3	110.5	111.1	112.8	113.4
60°	42.0	51.8	62.7	70.2	76.0	79.4	82.9	82.3	81.7	82.9	81.7
62.5°	29.9	36.8	44.9	49.5	54.1	55.8	57.5	56.4	55.2	55.8	55.8
65°	20.1	25.3	29.9	33.4	35.7	36.8	37.4	36.8	36.3	36.8	36.3
67.5°	13.8	16.7	20.1	21.9	23.6	24.2	24.7	24.2	24.2	24.2	23.6
70°	9.2	10.9	13.2	14.4	15.0	15.5	16.1	15.5	15.5	15.5	15.5
72.5°	6.3	7.5	8.1	9.2	9.8	9.8	9.8	9.8	9.8	9.8	9.8
75°	4.0	4.6	5.2	5.8	6.3	6.3	6.3	6.3	6.3	6.3	6.3
77.5°	2.9	2.9	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	1.7	1.7	2.3	2.3	2.3	2.3	2.9	2.3	2.9	2.9	2.9
82.5°	1.2	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	0.6	0.6	0.6	0.6	0.6	0.6	1.2	0.6	1.2	1.2	1.2
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: P212698

CATALOG NUMBER: LD4B10D010 EU4B10209027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	435.6	435.6	435.6	435.6
2.5°	425.9	424.7	421.2	425.3
5°	416.6	415.5	412.6	415.5
7.5°	407.4	405.7	403.4	405.1
10°	396.5	395.4	392.5	394.2
12.5°	388.4	386.1	384.4	385.0
15°	383.3	381.0	379.2	379.8
17.5°	376.4	374.1	372.3	372.3
20°	368.9	366.6	365.4	364.9
22.5°	362.5	360.8	360.2	358.5
25°	356.8	355.6	355.6	353.3
27.5°	350.5	348.7	348.7	346.4
30°	339.5	339.0	339.0	337.2
32.5°	325.1	323.4	324.6	321.7
35°	305.6	304.4	306.2	303.9
37.5°	284.3	283.7	284.9	283.1
40°	261.8	261.8	263.6	260.7
42.5°	242.3	242.3	244.0	241.1
45°	221.0	222.7	224.4	222.1
47.5°	202.6	203.7	206.0	203.7
50°	184.2	185.3	187.0	184.7
52.5°	164.0	165.2	166.9	165.2
55°	141.0	142.1	143.9	142.7
57.5°	113.4	112.2	115.1	112.8
60°	82.3	80.0	80.6	80.6
62.5°	54.7	53.5	54.7	52.9
65°	36.3	35.7	35.7	35.7
67.5°	24.2	23.6	24.2	23.6
70°	15.5	15.5	15.5	15.5
72.5°	9.8	9.8	9.8	9.8
75°	6.3	6.3	6.3	6.3
77.5°	4.0	4.0	4.0	4.0
80°	2.9	2.9	2.9	2.9
82.5°	1.7	1.7	1.7	1.7
85°	1.2	1.2	1.2	1.2
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)