

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: P212697

Luminaire Tested: **LD4B10D010 EU4B10209024 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212697
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 EU4B10209024 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 703.9 lumens
Efficiency: N/A
Efficacy: 70.0 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

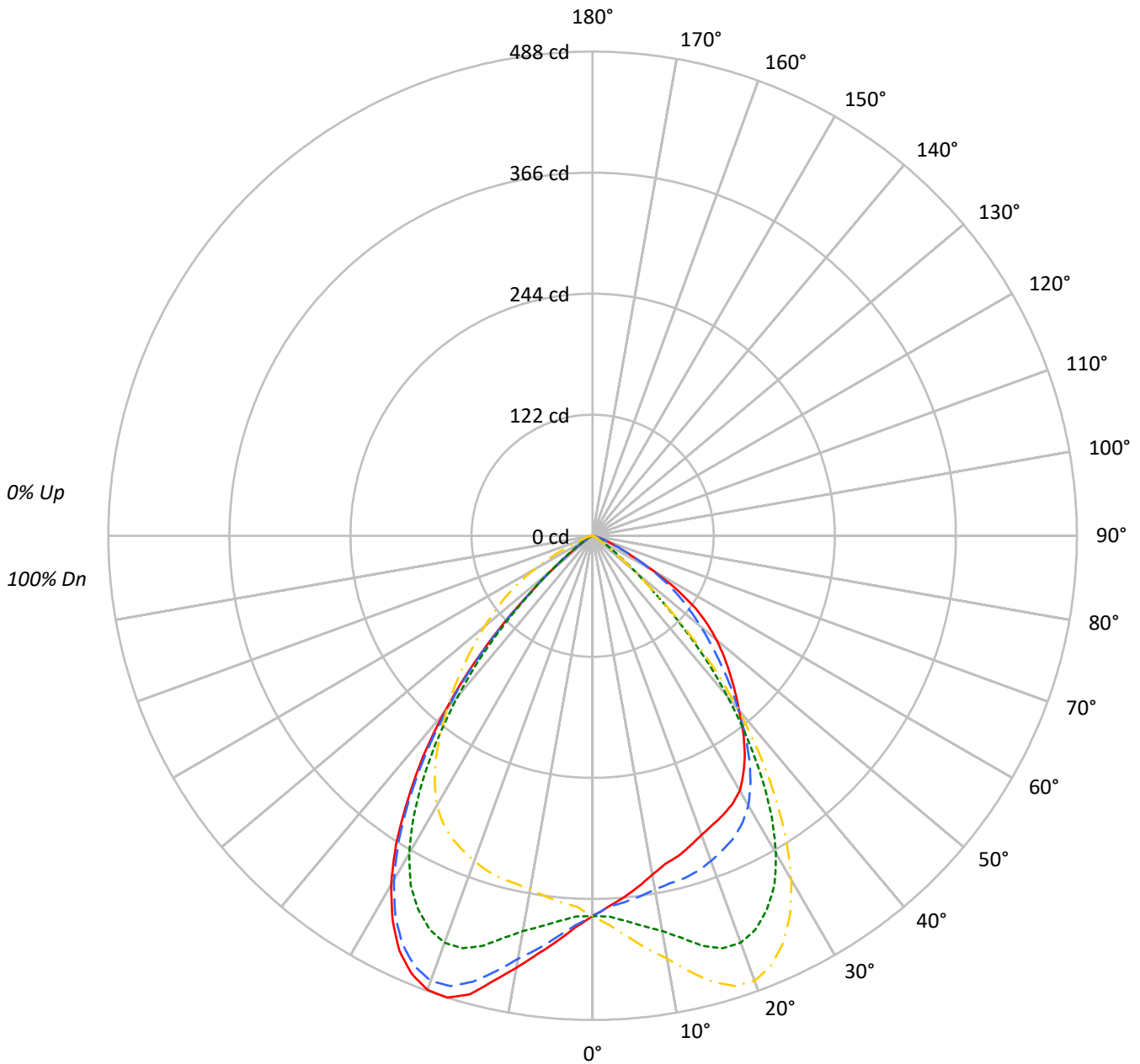
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWL11

Luminous Intensity Polar Plot





TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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°	47266	47266	47266	47266
5°	45255	48264	50765	48264
10°	43436	50663	55347	50663
15°	42663	54629	61090	54629
20°	42122	57283	63924	57283
25°	42299	56562	62768	56562
30°	42258	52627	57825	52627
35°	40249	44676	48862	44676
40°	36921	33991	37501	33991
45°	34085	21630	23305	21630
50°	31182	10496	10209	10496
55°	26988	4580	3269	4580
60°	17490	2245	1505	2245
65°	9164	1488	1167	1488
70°	4941	1082	902	1082
75°	2669	953	715	953
80°	1776	710	355	710
85°	1415	708	0	708



TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	5.3
10°-20°	116.9	16.6
20°-30°	181.7	25.8
30°-40°	183.5	26.1
40°-50°	116.2	16.5
50°-60°	48.8	6.9
60°-70°	15.5	2.2
70°-80°	3.5	0.5
80°-90°	0.5	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°	335.9	47.7
0°-40°	519.5	73.8
0°-60°	684.4	97.2
0°-90°	703.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	703.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	383	383	383	383	383	
5°	366	390	410	390	366	34
15°	334	428	478	428	334	94
25°	311	416	461	416	311	143
35°	267	297	324	297	267	166
45°	195	124	134	124	195	151
55°	126	21	15	21	126	108
65°	31	5	4	5	31	35
75°	6	2	2	2	6	7
85°	1	0	0	0	1	1
90°	0	0	0	0	0	



TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	374.1	370.6	373.6	374.6	374.6	374.1	375.1	374.1	372.6	378.7	374.1
5°	365.5	363.0	365.5	366.5	367.0	367.5	368.5	368.5	368.0	373.6	370.6
7.5°	356.4	354.9	356.9	358.4	360.4	359.9	361.4	362.0	363.0	369.5	366.5
10°	346.8	345.2	347.8	348.8	351.3	351.8	352.8	354.4	356.4	363.0	362.0
12.5°	338.7	338.2	339.7	341.7	344.2	344.7	345.8	348.3	351.3	358.4	358.9
15°	334.1	333.6	335.1	337.1	339.2	340.2	341.2	344.7	347.8	355.4	357.4
17.5°	327.5	327.5	329.0	331.1	333.6	334.6	336.1	339.7	343.7	351.3	353.9
20°	320.9	321.5	322.5	324.5	327.0	328.0	329.6	333.1	337.7	345.2	348.8
22.5°	315.4	316.9	317.4	318.9	321.5	323.0	323.5	327.5	331.6	338.2	342.7
25°	310.8	312.9	312.9	313.9	316.9	317.4	317.9	322.0	325.5	331.6	336.1
27.5°	304.8	306.8	306.8	308.3	310.3	311.3	311.3	314.9	318.4	323.0	326.5
30°	296.7	298.2	298.2	298.7	300.7	301.7	301.2	304.8	307.3	310.3	313.9
32.5°	283.0	285.5	284.5	286.0	287.0	288.0	287.0	290.1	292.1	295.1	296.1
35°	267.3	269.3	267.8	268.8	270.8	270.8	270.3	272.4	273.4	274.9	275.4
37.5°	249.1	250.6	249.6	250.1	251.1	251.6	250.6	252.6	252.6	253.1	252.1
40°	229.3	231.9	230.3	230.3	231.3	231.9	230.3	231.3	232.4	229.8	227.8
42.5°	212.1	214.6	213.1	213.1	213.1	213.6	211.6	212.1	212.1	208.6	205.5
45°	195.4	197.4	195.9	194.4	194.9	195.4	193.4	192.9	191.4	187.3	182.7
47.5°	179.2	181.2	179.2	178.2	178.2	178.2	175.7	174.1	172.1	166.5	161.0
50°	162.5	164.5	163.0	162.0	161.0	161.0	159.0	156.9	153.9	148.3	142.3
52.5°	145.3	146.8	145.3	144.3	143.3	143.3	140.7	139.2	135.7	130.1	123.5
55°	125.5	126.6	125.0	124.0	123.5	123.5	121.5	120.0	116.9	112.4	106.3
57.5°	99.2	101.2	98.7	99.7	99.7	99.2	97.7	97.2	96.2	92.1	87.6
60°	70.9	70.9	70.4	72.4	71.9	72.9	71.9	72.4	72.9	69.9	66.8
62.5°	46.6	48.1	47.1	48.1	49.1	49.1	48.6	49.6	50.6	49.1	47.6
65°	31.4	31.4	31.4	31.9	31.9	32.4	31.9	32.4	32.9	32.4	31.4
67.5°	20.8	21.3	20.8	21.3	20.8	21.3	21.3	21.3	21.8	21.3	20.8
70°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.2	13.7	13.2
72.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
75°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.5	2.0	2.0
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0	0.5	0.5
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



TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	376.6	375.1	382.7	376.1	379.7	379.2	379.7	382.7	382.7	384.2	383.7
5°	374.6	373.1	381.7	376.6	380.7	380.7	382.2	386.8	386.8	389.8	390.3
7.5°	371.6	372.1	381.2	378.2	382.7	383.2	385.7	391.3	392.8	396.9	398.9
10°	368.0	370.1	379.7	378.7	384.7	385.2	390.3	396.9	398.9	404.5	408.0
12.5°	366.5	370.1	381.2	382.2	388.3	390.8	396.4	405.0	408.5	415.1	420.2
15°	366.0	371.1	383.2	386.8	393.8	397.4	405.0	415.1	419.2	427.8	433.8
17.5°	363.5	370.1	383.2	388.8	396.4	399.9	409.5	421.2	426.2	435.9	443.0
20°	358.9	366.0	379.2	386.3	394.4	399.4	409.0	421.2	426.2	436.4	444.5
22.5°	352.8	359.9	372.6	380.7	387.8	393.3	403.5	415.1	419.7	429.3	437.4
25°	345.2	352.3	363.0	371.1	377.6	382.7	391.3	403.5	406.5	415.6	424.2
27.5°	334.6	341.2	349.3	356.9	363.0	367.0	374.6	385.2	387.8	396.9	404.0
30°	320.4	324.5	331.6	336.6	341.2	345.2	350.8	360.4	361.4	369.5	376.1
32.5°	301.2	303.2	308.3	310.8	314.9	316.4	320.9	329.0	328.0	335.6	341.2
35°	277.9	278.9	278.9	282.0	283.0	283.5	287.0	291.6	290.1	296.7	300.7
37.5°	252.6	252.1	249.1	249.1	249.6	248.1	249.6	251.6	249.6	254.6	258.2
40°	226.8	223.8	218.2	215.1	213.6	213.1	210.1	212.6	207.6	211.1	213.6
42.5°	202.0	196.9	188.3	182.2	179.7	177.2	172.1	172.1	165.5	168.1	168.6
45°	176.7	168.1	156.4	150.9	144.3	140.2	133.6	127.1	122.5	124.0	122.5
47.5°	153.4	143.3	129.6	120.0	112.4	106.8	97.7	90.1	85.6	83.5	81.5
50°	133.1	123.0	107.3	95.2	87.6	81.0	71.9	63.3	57.7	54.7	53.2
52.5°	114.9	104.3	89.1	76.4	68.3	62.3	52.1	43.5	37.5	33.9	31.9
55°	97.7	88.1	73.9	62.3	54.7	48.6	38.5	30.4	24.8	21.3	18.7
57.5°	80.5	71.9	60.2	49.1	42.5	37.0	28.3	21.3	16.7	13.7	11.6
60°	61.8	55.2	45.6	37.0	31.4	26.8	20.2	14.7	11.6	9.1	8.1
62.5°	43.5	39.5	32.4	26.3	22.8	19.2	14.2	10.6	8.1	6.6	6.1
65°	29.4	26.3	22.3	17.7	15.2	13.2	10.1	7.6	6.1	5.1	4.6
67.5°	19.2	17.7	14.7	12.1	10.6	9.1	7.1	5.6	4.6	4.0	3.5
70°	12.7	11.6	9.6	8.1	7.6	6.6	5.1	4.0	3.5	3.0	3.0
72.5°	8.1	7.1	6.6	5.6	5.1	4.6	3.5	3.0	2.5	2.5	2.5
75°	5.1	4.6	4.0	3.5	3.5	3.0	2.5	2.5	2.0	2.0	2.0
77.5°	3.0	3.0	2.5	2.5	2.0	2.0	2.0	1.5	1.5	1.5	1.5
80°	2.0	2.0	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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



TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	386.3	387.3	386.3	389.3	384.2	389.8	387.8	388.8	392.8	391.3	392.8
5°	393.8	395.9	395.9	399.4	394.9	401.4	399.4	401.4	405.5	405.5	407.5
7.5°	403.5	406.0	407.0	410.6	406.0	414.1	412.1	414.6	419.7	419.7	421.2
10°	413.6	416.6	418.7	422.7	417.6	426.8	424.7	428.3	432.8	433.3	435.9
12.5°	426.2	430.3	432.8	436.4	432.8	441.9	439.9	443.5	449.5	450.0	453.1
15°	440.4	445.5	448.5	452.6	448.5	458.6	456.6	460.7	465.2	467.3	470.3
17.5°	449.5	455.6	458.1	462.7	458.6	468.8	466.2	471.8	475.9	476.9	480.4
20°	451.1	456.6	460.2	463.7	460.2	470.3	467.8	472.3	477.4	478.4	480.9
22.5°	444.5	449.0	453.1	456.1	453.1	463.2	459.7	464.7	469.3	470.3	472.3
25°	429.3	434.9	438.9	441.4	438.4	448.0	445.0	449.5	453.6	455.6	456.1
27.5°	408.0	413.1	417.1	418.7	416.6	425.7	421.7	427.3	430.8	431.8	433.3
30°	379.2	383.7	387.8	388.8	387.3	393.8	391.8	396.9	400.4	401.4	402.5
32.5°	343.7	348.3	350.8	351.8	350.3	356.9	354.9	358.9	363.0	363.0	363.0
35°	303.7	307.8	309.3	312.3	308.8	315.4	313.4	316.9	320.4	320.4	320.9
37.5°	260.7	263.7	264.8	267.8	264.3	270.3	268.8	271.8	274.9	274.4	275.4
40°	214.6	217.7	218.7	221.2	218.2	223.2	222.2	225.3	227.8	227.8	227.8
42.5°	170.1	172.1	172.1	174.6	171.6	176.2	176.2	178.2	180.7	180.2	180.2
45°	123.5	123.0	124.0	123.5	123.5	127.6	127.6	128.6	130.6	129.6	130.1
47.5°	82.0	82.5	80.5	82.0	80.0	83.5	83.5	83.5	85.0	84.0	85.0
50°	52.1	50.6	49.6	49.6	49.1	51.6	50.6	51.1	52.1	51.1	52.1
52.5°	29.4	28.9	27.8	28.3	27.3	27.8	27.8	27.8	28.3	27.8	28.9
55°	17.2	15.7	15.2	15.2	14.7	15.2	14.7	14.7	14.7	14.2	14.7
57.5°	10.1	9.6	9.1	9.1	8.6	8.6	8.6	8.6	8.6	8.6	8.6
60°	7.1	6.6	6.6	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
62.5°	5.6	5.1	5.1	5.1	4.6	4.6	4.6	4.6	4.6	5.1	4.6
65°	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0	4.0	4.0
67.5°	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.0	0.5	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: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	394.4	392.3	387.8	390.8	391.3	389.3	391.8	394.9	391.8	389.3	391.3
5°	409.0	407.5	403.5	406.0	406.5	406.0	407.5	410.0	407.5	406.0	406.5
7.5°	423.7	422.7	418.1	421.2	422.2	421.2	422.7	425.2	422.7	421.2	422.2
10°	437.9	437.4	432.8	436.9	437.4	436.4	437.9	441.9	437.9	436.4	437.4
12.5°	454.1	455.1	450.0	454.6	455.1	454.1	456.1	459.2	456.1	454.1	455.1
15°	472.8	472.3	468.3	471.8	472.8	471.8	474.3	478.4	474.3	471.8	472.8
17.5°	481.9	481.9	478.9	482.4	482.9	482.9	485.0	488.0	485.0	482.9	482.9
20°	482.4	482.9	479.4	483.4	483.4	483.4	485.5	487.0	485.5	483.4	483.4
22.5°	474.3	474.8	471.3	474.8	474.8	475.3	476.4	477.4	476.4	475.3	474.8
25°	458.6	459.2	456.1	459.2	458.6	458.6	459.7	461.2	459.7	458.6	458.6
27.5°	435.4	435.9	431.8	435.4	434.9	434.3	435.9	436.4	435.9	434.3	434.9
30°	404.5	405.0	401.4	404.5	404.0	403.5	405.5	406.0	405.5	403.5	404.0
32.5°	367.5	366.5	364.0	366.5	366.0	366.0	367.0	368.5	367.0	366.0	366.0
35°	323.0	323.0	321.5	323.5	322.0	324.0	324.0	324.5	324.0	324.0	322.0
37.5°	277.4	277.4	276.4	277.4	276.9	278.9	278.9	280.5	278.9	278.9	276.9
40°	229.8	229.8	228.8	229.8	231.3	231.3	230.8	232.9	230.8	231.3	231.3
42.5°	181.7	181.7	181.2	183.8	183.8	183.8	182.2	184.3	182.2	183.8	183.8
45°	132.1	131.1	130.6	130.6	131.1	133.1	131.1	133.6	131.1	133.1	131.1
47.5°	84.0	84.5	85.0	86.6	85.6	85.0	85.0	86.6	85.0	85.0	85.6
50°	51.6	52.1	52.1	53.2	51.6	52.6	52.1	53.2	52.1	52.6	51.6
52.5°	28.3	28.3	28.3	29.4	28.3	28.9	28.3	29.4	28.3	28.9	28.3
55°	14.7	14.7	14.7	15.2	14.7	14.7	14.7	15.2	14.7	14.7	14.7
57.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
60°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
62.5°	5.1	4.6	4.6	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
65°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	390.8	387.8	392.3	394.4	392.8	391.3	392.8	388.8	387.8	389.8	384.2
5°	406.0	403.5	407.5	409.0	407.5	405.5	405.5	401.4	399.4	401.4	394.9
7.5°	421.2	418.1	422.7	423.7	421.2	419.7	419.7	414.6	412.1	414.1	406.0
10°	436.9	432.8	437.4	437.9	435.9	433.3	432.8	428.3	424.7	426.8	417.6
12.5°	454.6	450.0	455.1	454.1	453.1	450.0	449.5	443.5	439.9	441.9	432.8
15°	471.8	468.3	472.3	472.8	470.3	467.3	465.2	460.7	456.6	458.6	448.5
17.5°	482.4	478.9	481.9	481.9	480.4	476.9	475.9	471.8	466.2	468.8	458.6
20°	483.4	479.4	482.9	482.4	480.9	478.4	477.4	472.3	467.8	470.3	460.2
22.5°	474.8	471.3	474.8	474.3	472.3	470.3	469.3	464.7	459.7	463.2	453.1
25°	459.2	456.1	459.2	458.6	456.1	455.6	453.6	449.5	445.0	448.0	438.4
27.5°	435.4	431.8	435.9	435.4	433.3	431.8	430.8	427.3	421.7	425.7	416.6
30°	404.5	401.4	405.0	404.5	402.5	401.4	400.4	396.9	391.8	393.8	387.3
32.5°	366.5	364.0	366.5	367.5	363.0	363.0	363.0	358.9	354.9	356.9	350.3
35°	323.5	321.5	323.0	323.0	320.9	320.4	320.4	316.9	313.4	315.4	308.8
37.5°	277.4	276.4	277.4	277.4	275.4	274.4	274.9	271.8	268.8	270.3	264.3
40°	229.8	228.8	229.8	229.8	227.8	227.8	227.8	225.3	222.2	223.2	218.2
42.5°	183.8	181.2	181.7	181.7	180.2	180.2	180.7	178.2	176.2	176.2	171.6
45°	130.6	130.6	131.1	132.1	130.1	129.6	130.6	128.6	127.6	127.6	123.5
47.5°	86.6	85.0	84.5	84.0	85.0	84.0	85.0	83.5	83.5	83.5	80.0
50°	53.2	52.1	52.1	51.6	52.1	51.1	52.1	51.1	50.6	51.6	49.1
52.5°	29.4	28.3	28.3	28.3	28.9	27.8	28.3	27.8	27.8	27.8	27.3
55°	15.2	14.7	14.7	14.7	14.7	14.2	14.7	14.7	14.7	15.2	14.7
57.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
60°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
62.5°	5.1	4.6	4.6	5.1	4.6	5.1	4.6	4.6	4.6	4.6	4.6
65°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	4.0	4.0
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	389.3	386.3	387.3	386.3	383.7	384.2	382.7	382.7	379.7	379.2	379.7
5°	399.4	395.9	395.9	393.8	390.3	389.8	386.8	386.8	382.2	380.7	380.7
7.5°	410.6	407.0	406.0	403.5	398.9	396.9	392.8	391.3	385.7	383.2	382.7
10°	422.7	418.7	416.6	413.6	408.0	404.5	398.9	396.9	390.3	385.2	384.7
12.5°	436.4	432.8	430.3	426.2	420.2	415.1	408.5	405.0	396.4	390.8	388.3
15°	452.6	448.5	445.5	440.4	433.8	427.8	419.2	415.1	405.0	397.4	393.8
17.5°	462.7	458.1	455.6	449.5	443.0	435.9	426.2	421.2	409.5	399.9	396.4
20°	463.7	460.2	456.6	451.1	444.5	436.4	426.2	421.2	409.0	399.4	394.4
22.5°	456.1	453.1	449.0	444.5	437.4	429.3	419.7	415.1	403.5	393.3	387.8
25°	441.4	438.9	434.9	429.3	424.2	415.6	406.5	403.5	391.3	382.7	377.6
27.5°	418.7	417.1	413.1	408.0	404.0	396.9	387.8	385.2	374.6	367.0	363.0
30°	388.8	387.8	383.7	379.2	376.1	369.5	361.4	360.4	350.8	345.2	341.2
32.5°	351.8	350.8	348.3	343.7	341.2	335.6	328.0	329.0	320.9	316.4	314.9
35°	312.3	309.3	307.8	303.7	300.7	296.7	290.1	291.6	287.0	283.5	283.0
37.5°	267.8	264.8	263.7	260.7	258.2	254.6	249.6	251.6	249.6	248.1	249.6
40°	221.2	218.7	217.7	214.6	213.6	211.1	207.6	212.6	210.1	213.1	213.6
42.5°	174.6	172.1	172.1	170.1	168.6	168.1	165.5	172.1	172.1	177.2	179.7
45°	123.5	124.0	123.0	123.5	122.5	124.0	122.5	127.1	133.6	140.2	144.3
47.5°	82.0	80.5	82.5	82.0	81.5	83.5	85.6	90.1	97.7	106.8	112.4
50°	49.6	49.6	50.6	52.1	53.2	54.7	57.7	63.3	71.9	81.0	87.6
52.5°	28.3	27.8	28.9	29.4	31.9	33.9	37.5	43.5	52.1	62.3	68.3
55°	15.2	15.2	15.7	17.2	18.7	21.3	24.8	30.4	38.5	48.6	54.7
57.5°	9.1	9.1	9.6	10.1	11.6	13.7	16.7	21.3	28.3	37.0	42.5
60°	6.1	6.6	6.6	7.1	8.1	9.1	11.6	14.7	20.2	26.8	31.4
62.5°	5.1	5.1	5.1	5.6	6.1	6.6	8.1	10.6	14.2	19.2	22.8
65°	4.0	4.0	4.0	4.0	4.6	5.1	6.1	7.6	10.1	13.2	15.2
67.5°	3.0	3.0	3.5	3.5	3.5	4.0	4.6	5.6	7.1	9.1	10.6
70°	2.5	2.5	2.5	2.5	3.0	3.0	3.5	4.0	5.1	6.6	7.6
72.5°	2.0	2.0	2.0	2.0	2.5	2.5	2.5	3.0	3.5	4.6	5.1
75°	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.5	2.5	3.0	3.5
77.5°	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	2.0	2.0	2.0
80°	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0
85°	0.0	0.0	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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



TEST NUMBER: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2	383.2
2.5°	376.1	382.7	375.1	376.6	374.1	378.7	372.6	374.1	375.1	374.1	374.6
5°	376.6	381.7	373.1	374.6	370.6	373.6	368.0	368.5	368.5	367.5	367.0
7.5°	378.2	381.2	372.1	371.6	366.5	369.5	363.0	362.0	361.4	359.9	360.4
10°	378.7	379.7	370.1	368.0	362.0	363.0	356.4	354.4	352.8	351.8	351.3
12.5°	382.2	381.2	370.1	366.5	358.9	358.4	351.3	348.3	345.8	344.7	344.2
15°	386.8	383.2	371.1	366.0	357.4	355.4	347.8	344.7	341.2	340.2	339.2
17.5°	388.8	383.2	370.1	363.5	353.9	351.3	343.7	339.7	336.1	334.6	333.6
20°	386.3	379.2	366.0	358.9	348.8	345.2	337.7	333.1	329.6	328.0	327.0
22.5°	380.7	372.6	359.9	352.8	342.7	338.2	331.6	327.5	323.5	323.0	321.5
25°	371.1	363.0	352.3	345.2	336.1	331.6	325.5	322.0	317.9	317.4	316.9
27.5°	356.9	349.3	341.2	334.6	326.5	323.0	318.4	314.9	311.3	311.3	310.3
30°	336.6	331.6	324.5	320.4	313.9	310.3	307.3	304.8	301.2	301.7	300.7
32.5°	310.8	308.3	303.2	301.2	296.1	295.1	292.1	290.1	287.0	288.0	287.0
35°	282.0	278.9	278.9	277.9	275.4	274.9	273.4	272.4	270.3	270.8	270.8
37.5°	249.1	249.1	252.1	252.6	252.1	253.1	252.6	252.6	250.6	251.6	251.1
40°	215.1	218.2	223.8	226.8	227.8	229.8	232.4	231.3	230.3	231.9	231.3
42.5°	182.2	188.3	196.9	202.0	205.5	208.6	212.1	212.1	211.6	213.6	213.1
45°	150.9	156.4	168.1	176.7	182.7	187.3	191.4	192.9	193.4	195.4	194.9
47.5°	120.0	129.6	143.3	153.4	161.0	166.5	172.1	174.1	175.7	178.2	178.2
50°	95.2	107.3	123.0	133.1	142.3	148.3	153.9	156.9	159.0	161.0	161.0
52.5°	76.4	89.1	104.3	114.9	123.5	130.1	135.7	139.2	140.7	143.3	143.3
55°	62.3	73.9	88.1	97.7	106.3	112.4	116.9	120.0	121.5	123.5	123.5
57.5°	49.1	60.2	71.9	80.5	87.6	92.1	96.2	97.2	97.7	99.2	99.7
60°	37.0	45.6	55.2	61.8	66.8	69.9	72.9	72.4	71.9	72.9	71.9
62.5°	26.3	32.4	39.5	43.5	47.6	49.1	50.6	49.6	48.6	49.1	49.1
65°	17.7	22.3	26.3	29.4	31.4	32.4	32.9	32.4	31.9	32.4	31.9
67.5°	12.1	14.7	17.7	19.2	20.8	21.3	21.8	21.3	21.3	21.3	20.8
70°	8.1	9.6	11.6	12.7	13.2	13.7	14.2	13.7	13.7	13.7	13.7
72.5°	5.6	6.6	7.1	8.1	8.6	8.6	8.6	8.6	8.6	8.6	8.6
75°	3.5	4.0	4.6	5.1	5.6	5.6	5.6	5.6	5.6	5.6	5.6
77.5°	2.5	2.5	3.0	3.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	1.5	1.5	2.0	2.0	2.0	2.0	2.5	2.0	2.5	2.5	2.5
82.5°	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5	1.0	1.0	1.0
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: P212697

CATALOG NUMBER: LD4B10D010 EU4B10209024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	383.2	383.2	383.2	383.2
2.5°	374.6	373.6	370.6	374.1
5°	366.5	365.5	363.0	365.5
7.5°	358.4	356.9	354.9	356.4
10°	348.8	347.8	345.2	346.8
12.5°	341.7	339.7	338.2	338.7
15°	337.1	335.1	333.6	334.1
17.5°	331.1	329.0	327.5	327.5
20°	324.5	322.5	321.5	320.9
22.5°	318.9	317.4	316.9	315.4
25°	313.9	312.9	312.9	310.8
27.5°	308.3	306.8	306.8	304.8
30°	298.7	298.2	298.2	296.7
32.5°	286.0	284.5	285.5	283.0
35°	268.8	267.8	269.3	267.3
37.5°	250.1	249.6	250.6	249.1
40°	230.3	230.3	231.9	229.3
42.5°	213.1	213.1	214.6	212.1
45°	194.4	195.9	197.4	195.4
47.5°	178.2	179.2	181.2	179.2
50°	162.0	163.0	164.5	162.5
52.5°	144.3	145.3	146.8	145.3
55°	124.0	125.0	126.6	125.5
57.5°	99.7	98.7	101.2	99.2
60°	72.4	70.4	70.9	70.9
62.5°	48.1	47.1	48.1	46.6
65°	31.9	31.4	31.4	31.4
67.5°	21.3	20.8	21.3	20.8
70°	13.7	13.7	13.7	13.7
72.5°	8.6	8.6	8.6	8.6
75°	5.6	5.6	5.6	5.6
77.5°	3.5	3.5	3.5	3.5
80°	2.5	2.5	2.5	2.5
82.5°	1.5	1.5	1.5	1.5
85°	1.0	1.0	1.0	1.0
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)