

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: P212702

Luminaire Tested: **LD4B10D010 EU4B10209050 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212702
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 EU4B10209050 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 849.1 lumens
Efficiency: N/A
Efficacy: 84.5 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

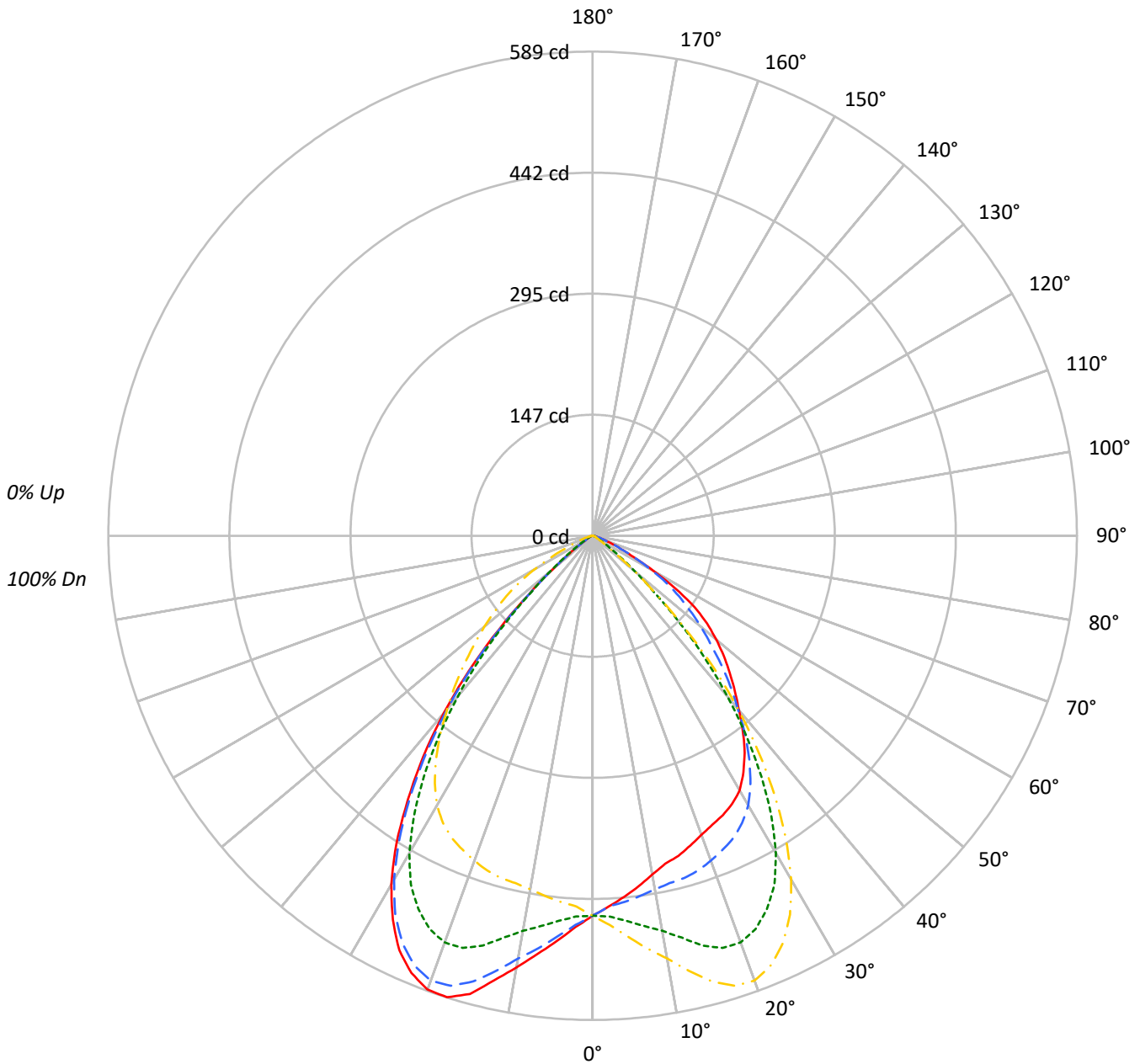
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	57010	57010	57010	57010
5°	54591	58219	61240	58219
10°	52391	61109	66770	61109
15°	51462	65892	73681	65892
20°	50811	69096	77103	69096
25°	51023	68225	75711	68225
30°	50960	63494	69747	63494
35°	48546	53877	58936	53877
40°	44537	40995	45229	40995
45°	41115	26096	28119	26096
50°	37611	12646	12300	12646
55°	32558	5505	3935	5505
60°	21092	2714	1801	2714
65°	11062	1780	1430	1780
70°	5951	1334	1118	1334
75°	3193	1144	858	1144
80°	2202	852	426	852
85°	1698	849	0	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	5.3
10°-20°	141.0	16.6
20°-30°	219.2	25.8
30°-40°	221.4	26.1
40°-50°	140.2	16.5
50°-60°	58.8	6.9
60°-70°	18.7	2.2
70°-80°	4.3	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°	405.2	47.7
0°-40°	626.6	73.8
0°-60°	825.6	97.2
0°-90°	849.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	849.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	462	462	462	462	462	
5°	441	470	495	470	441	41
15°	403	516	577	516	403	114
25°	375	501	556	501	375	173
35°	322	358	391	358	322	200
45°	236	150	161	150	236	182
55°	151	26	18	26	151	131
65°	38	6	5	6	38	42
75°	7	2	2	2	7	8
85°	1	1	0	1	1	1
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°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	451.3	447.0	450.6	451.9	451.9	451.3	452.5	451.3	449.4	456.7	451.3
5°	440.9	437.8	440.9	442.1	442.7	443.3	444.5	444.5	443.9	450.6	447.0
7.5°	429.9	428.0	430.5	432.3	434.8	434.2	436.0	436.6	437.8	445.8	442.1
10°	418.3	416.4	419.5	420.7	423.8	424.4	425.6	427.4	429.9	437.8	436.6
12.5°	408.5	407.9	409.7	412.2	415.2	415.8	417.1	420.1	423.8	432.3	432.9
15°	403.0	402.4	404.2	406.7	409.1	410.3	411.6	415.8	419.5	428.7	431.1
17.5°	395.1	395.1	396.9	399.3	402.4	403.6	405.5	409.7	414.6	423.8	426.8
20°	387.1	387.7	389.0	391.4	394.5	395.7	397.5	401.8	407.3	416.4	420.7
22.5°	380.4	382.3	382.9	384.7	387.7	389.6	390.2	395.1	400.0	407.9	413.4
25°	374.9	377.4	377.4	378.6	382.3	382.9	383.5	388.4	392.6	400.0	405.5
27.5°	367.6	370.0	370.0	371.9	374.3	375.5	375.5	379.8	384.1	389.6	393.9
30°	357.8	359.7	359.7	360.3	362.7	363.9	363.3	367.6	370.6	374.3	378.6
32.5°	341.3	344.4	343.2	345.0	346.2	347.4	346.2	349.9	352.3	356.0	357.2
35°	322.4	324.9	323.0	324.2	326.7	326.7	326.1	328.5	329.7	331.6	332.2
37.5°	300.4	302.3	301.0	301.6	302.9	303.5	302.3	304.7	304.7	305.3	304.1
40°	276.6	279.7	277.8	277.8	279.1	279.7	277.8	279.1	280.3	277.2	274.8
42.5°	255.9	258.9	257.1	257.1	257.1	257.7	255.2	255.9	255.9	251.6	247.9
45°	235.7	238.1	236.3	234.5	235.1	235.7	233.3	232.6	230.8	225.9	220.4
47.5°	216.2	218.6	216.2	214.9	214.9	214.9	211.9	210.1	207.6	200.9	194.2
50°	196.0	198.5	196.6	195.4	194.2	194.2	191.7	189.3	185.6	178.9	171.6
52.5°	175.2	177.1	175.2	174.0	172.8	172.8	169.8	167.9	163.6	156.9	149.0
55°	151.4	152.7	150.8	149.6	149.0	149.0	146.5	144.7	141.1	135.6	128.2
57.5°	119.7	122.1	119.1	120.3	120.3	119.7	117.9	117.2	116.0	111.1	105.6
60°	85.5	85.5	84.9	87.3	86.7	87.9	86.7	87.3	87.9	84.3	80.6
62.5°	56.2	58.0	56.8	58.0	59.2	59.2	58.6	59.8	61.1	59.2	57.4
65°	37.9	37.9	37.9	38.5	38.5	39.1	38.5	39.1	39.7	39.1	37.9
67.5°	25.0	25.6	25.0	25.6	25.0	25.6	25.6	25.6	26.3	25.6	25.0
70°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	17.1	16.5	15.9
72.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
75°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
77.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.4	3.1	2.4	2.4
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	454.3	452.5	461.6	453.7	458.0	457.4	458.0	461.6	461.6	463.5	462.9
5°	451.9	450.0	460.4	454.3	459.2	459.2	461.0	466.5	466.5	470.2	470.8
7.5°	448.2	448.8	459.8	456.1	461.6	462.2	465.3	472.0	473.8	478.7	481.2
10°	443.9	446.4	458.0	456.7	464.1	464.7	470.8	478.7	481.2	487.9	492.2
12.5°	442.1	446.4	459.8	461.0	468.3	471.4	478.1	488.5	492.8	500.7	506.8
15°	441.5	447.6	462.2	466.5	475.1	479.3	488.5	500.7	505.6	516.0	523.3
17.5°	438.4	446.4	462.2	469.0	478.1	482.4	494.0	508.0	514.1	525.7	534.3
20°	432.9	441.5	457.4	465.9	475.7	481.8	493.4	508.0	514.1	526.4	536.1
22.5°	425.6	434.2	449.4	459.2	467.7	474.5	486.7	500.7	506.2	517.8	527.6
25°	416.4	425.0	437.8	447.6	455.5	461.6	472.0	486.7	490.3	501.3	511.7
27.5°	403.6	411.6	421.3	430.5	437.8	442.7	451.9	464.7	467.7	478.7	487.3
30°	386.5	391.4	400.0	406.1	411.6	416.4	423.2	434.8	436.0	445.8	453.7
32.5°	363.3	365.8	371.9	374.9	379.8	381.6	387.1	396.9	395.7	404.8	411.6
35°	335.2	336.5	336.5	340.1	341.3	341.9	346.2	351.7	349.9	357.8	362.7
37.5°	304.7	304.1	300.4	300.4	301.0	299.2	301.0	303.5	301.0	307.1	311.4
40°	273.6	269.9	263.2	259.5	257.7	257.1	253.4	256.5	250.4	254.6	257.7
42.5°	243.6	237.5	227.2	219.8	216.8	213.7	207.6	207.6	199.7	202.7	203.3
45°	213.1	202.7	188.7	182.0	174.0	169.1	161.2	153.3	147.8	149.6	147.8
47.5°	185.0	172.8	156.3	144.7	135.6	128.8	117.9	108.7	103.2	100.8	98.3
50°	160.6	148.4	129.5	114.8	105.6	97.7	86.7	76.3	69.6	65.9	64.1
52.5°	138.6	125.8	107.5	92.2	82.4	75.1	62.9	52.5	45.2	40.9	38.5
55°	117.9	106.2	89.2	75.1	65.9	58.6	46.4	36.6	29.9	25.6	22.6
57.5°	97.1	86.7	72.7	59.2	51.3	44.6	34.2	25.6	20.2	16.5	14.0
60°	74.5	66.6	55.0	44.6	37.9	32.4	24.4	17.7	14.0	11.0	9.8
62.5°	52.5	47.6	39.1	31.8	27.5	23.2	17.1	12.8	9.8	7.9	7.3
65°	35.4	31.8	26.9	21.4	18.3	15.9	12.2	9.2	7.3	6.1	5.5
67.5°	23.2	21.4	17.7	14.7	12.8	11.0	8.5	6.7	5.5	4.9	4.3
70°	15.3	14.0	11.6	9.8	9.2	7.9	6.1	4.9	4.3	3.7	3.7
72.5°	9.8	8.5	7.9	6.7	6.1	5.5	4.3	3.7	3.1	3.1	3.1
75°	6.1	5.5	4.9	4.3	4.3	3.7	3.1	3.1	2.4	2.4	2.4
77.5°	3.7	3.7	3.1	3.1	2.4	2.4	2.4	1.8	1.8	1.8	1.8
80°	2.4	2.4	1.8	1.8	1.8	1.8	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	465.9	467.1	465.9	469.6	463.5	470.2	467.7	469.0	473.8	472.0	473.8
5°	475.1	477.5	477.5	481.8	476.3	484.2	481.8	484.2	489.1	489.1	491.6
7.5°	486.7	489.7	490.9	495.2	489.7	499.5	497.0	500.1	506.2	506.2	508.0
10°	498.9	502.5	505.0	509.9	503.8	514.8	512.3	516.6	522.1	522.7	525.7
12.5°	514.1	519.0	522.1	526.4	522.1	533.1	530.6	534.9	542.2	542.8	546.5
15°	531.2	537.3	541.0	545.9	541.0	553.2	550.8	555.7	561.2	563.6	567.3
17.5°	542.2	549.6	552.6	558.1	553.2	565.4	562.4	569.1	574.0	575.2	579.5
20°	544.1	550.8	555.1	559.3	555.1	567.3	564.2	569.7	575.8	577.0	580.1
22.5°	536.1	541.6	546.5	550.2	546.5	558.7	554.4	560.6	566.0	567.3	569.7
25°	517.8	524.5	529.4	532.5	528.8	540.4	536.7	542.2	547.1	549.6	550.2
27.5°	492.2	498.3	503.2	505.0	502.5	513.5	508.6	515.4	519.6	520.9	522.7
30°	457.4	462.9	467.7	469.0	467.1	475.1	472.6	478.7	483.0	484.2	485.4
32.5°	414.6	420.1	423.2	424.4	422.6	430.5	428.0	432.9	437.8	437.8	437.8
35°	366.4	371.3	373.1	376.8	372.5	380.4	378.0	382.3	386.5	386.5	387.1
37.5°	314.5	318.1	319.4	323.0	318.7	326.1	324.2	327.9	331.6	331.0	332.2
40°	258.9	262.6	263.8	266.8	263.2	269.3	268.1	271.7	274.8	274.8	274.8
42.5°	205.2	207.6	207.6	210.7	207.0	212.5	212.5	214.9	218.0	217.4	217.4
45°	149.0	148.4	149.6	149.0	149.0	153.9	153.9	155.1	157.5	156.3	156.9
47.5°	98.9	99.5	97.1	98.9	96.5	100.8	100.8	100.8	102.6	101.4	102.6
50°	62.9	61.1	59.8	59.8	59.2	62.3	61.1	61.7	62.9	61.7	62.9
52.5°	35.4	34.8	33.6	34.2	33.0	33.6	33.6	33.6	34.2	33.6	34.8
55°	20.8	18.9	18.3	18.3	17.7	18.3	17.7	17.7	17.7	17.1	17.7
57.5°	12.2	11.6	11.0	11.0	10.4	10.4	10.4	10.4	10.4	10.4	10.4
60°	8.5	7.9	7.9	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
62.5°	6.7	6.1	6.1	6.1	5.5	5.5	5.5	5.5	5.5	6.1	5.5
65°	4.9	4.9	4.9	4.9	4.9	4.9	4.3	4.9	4.9	4.9	4.9
67.5°	4.3	4.3	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	475.7	473.2	467.7	471.4	472.0	469.6	472.6	476.3	472.6	469.6	472.0
5°	493.4	491.6	486.7	489.7	490.3	489.7	491.6	494.6	491.6	489.7	490.3
7.5°	511.1	509.9	504.4	508.0	509.3	508.0	509.9	512.9	509.9	508.0	509.3
10°	528.2	527.6	522.1	527.0	527.6	526.4	528.2	533.1	528.2	526.4	527.6
12.5°	547.7	549.0	542.8	548.3	549.0	547.7	550.2	553.8	550.2	547.7	549.0
15°	570.3	569.7	564.8	569.1	570.3	569.1	572.2	577.0	572.2	569.1	570.3
17.5°	581.3	581.3	577.6	581.9	582.5	582.5	585.0	588.6	585.0	582.5	582.5
20°	581.9	582.5	578.3	583.1	583.1	583.1	585.6	587.4	585.6	583.1	583.1
22.5°	572.2	572.8	568.5	572.8	572.8	573.4	574.6	575.8	574.6	573.4	572.8
25°	553.2	553.8	550.2	553.8	553.2	553.2	554.4	556.3	554.4	553.2	553.2
27.5°	525.1	525.7	520.9	525.1	524.5	523.9	525.7	526.4	525.7	523.9	524.5
30°	487.9	488.5	484.2	487.9	487.3	486.7	489.1	489.7	489.1	486.7	487.3
32.5°	443.3	442.1	439.0	442.1	441.5	441.5	442.7	444.5	442.7	441.5	441.5
35°	389.6	389.6	387.7	390.2	388.4	390.8	390.8	391.4	390.8	390.8	388.4
37.5°	334.6	334.6	333.4	334.6	334.0	336.5	336.5	338.3	336.5	336.5	334.0
40°	277.2	277.2	276.0	277.2	279.1	279.1	278.4	280.9	278.4	279.1	279.1
42.5°	219.2	219.2	218.6	221.7	221.7	221.7	219.8	222.3	219.8	221.7	221.7
45°	159.4	158.2	157.5	157.5	158.2	160.6	158.2	161.2	158.2	160.6	158.2
47.5°	101.4	102.0	102.6	104.4	103.2	102.6	102.6	104.4	102.6	102.6	103.2
50°	62.3	62.9	62.9	64.1	62.3	63.5	62.9	64.1	62.9	63.5	62.3
52.5°	34.2	34.2	34.2	35.4	34.2	34.8	34.2	35.4	34.2	34.8	34.2
55°	17.7	17.7	17.7	18.3	17.7	17.7	17.7	18.3	17.7	17.7	17.7
57.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
60°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
62.5°	6.1	5.5	5.5	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
65°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
67.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P212702

CATALOG NUMBER: LD4B10D010 EU4B10209050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	471.4	467.7	473.2	475.7	473.8	472.0	473.8	469.0	467.7	470.2	463.5
5°	489.7	486.7	491.6	493.4	491.6	489.1	489.1	484.2	481.8	484.2	476.3
7.5°	508.0	504.4	509.9	511.1	508.0	506.2	506.2	500.1	497.0	499.5	489.7
10°	527.0	522.1	527.6	528.2	525.7	522.7	522.1	516.6	512.3	514.8	503.8
12.5°	548.3	542.8	549.0	547.7	546.5	542.8	542.2	534.9	530.6	533.1	522.1
15°	569.1	564.8	569.7	570.3	567.3	563.6	561.2	555.7	550.8	553.2	541.0
17.5°	581.9	577.6	581.3	581.3	579.5	575.2	574.0	569.1	562.4	565.4	553.2
20°	583.1	578.3	582.5	581.9	580.1	577.0	575.8	569.7	564.2	567.3	555.1
22.5°	572.8	568.5	572.8	572.2	569.7	567.3	566.0	560.6	554.4	558.7	546.5
25°	553.8	550.2	553.8	553.2	550.2	549.6	547.1	542.2	536.7	540.4	528.8
27.5°	525.1	520.9	525.7	525.1	522.7	520.9	519.6	515.4	508.6	513.5	502.5
30°	487.9	484.2	488.5	487.9	485.4	484.2	483.0	478.7	472.6	475.1	467.1
32.5°	442.1	439.0	442.1	443.3	437.8	437.8	437.8	432.9	428.0	430.5	422.6
35°	390.2	387.7	389.6	389.6	387.1	386.5	386.5	382.3	378.0	380.4	372.5
37.5°	334.6	333.4	334.6	334.6	332.2	331.0	331.6	327.9	324.2	326.1	318.7
40°	277.2	276.0	277.2	277.2	274.8	274.8	274.8	271.7	268.1	269.3	263.2
42.5°	221.7	218.6	219.2	219.2	217.4	217.4	218.0	214.9	212.5	212.5	207.0
45°	157.5	157.5	158.2	159.4	156.9	156.3	157.5	155.1	153.9	153.9	149.0
47.5°	104.4	102.6	102.0	101.4	102.6	101.4	102.6	100.8	100.8	100.8	96.5
50°	64.1	62.9	62.9	62.3	62.9	61.7	62.9	61.7	61.1	62.3	59.2
52.5°	35.4	34.2	34.2	34.2	34.8	33.6	34.2	33.6	33.6	33.6	33.0
55°	18.3	17.7	17.7	17.7	17.7	17.1	17.7	17.7	17.7	18.3	17.7
57.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
60°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
62.5°	6.1	5.5	5.5	6.1	5.5	6.1	5.5	5.5	5.5	5.5	5.5
65°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.3	4.9	4.9
67.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P212702

CATALOG NUMBER: LD4B10D010 EU4B10209050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	469.6	465.9	467.1	465.9	462.9	463.5	461.6	461.6	458.0	457.4	458.0
5°	481.8	477.5	477.5	475.1	470.8	470.2	466.5	466.5	461.0	459.2	459.2
7.5°	495.2	490.9	489.7	486.7	481.2	478.7	473.8	472.0	465.3	462.2	461.6
10°	509.9	505.0	502.5	498.9	492.2	487.9	481.2	478.7	470.8	464.7	464.1
12.5°	526.4	522.1	519.0	514.1	506.8	500.7	492.8	488.5	478.1	471.4	468.3
15°	545.9	541.0	537.3	531.2	523.3	516.0	505.6	500.7	488.5	479.3	475.1
17.5°	558.1	552.6	549.6	542.2	534.3	525.7	514.1	508.0	494.0	482.4	478.1
20°	559.3	555.1	550.8	544.1	536.1	526.4	514.1	508.0	493.4	481.8	475.7
22.5°	550.2	546.5	541.6	536.1	527.6	517.8	506.2	500.7	486.7	474.5	467.7
25°	532.5	529.4	524.5	517.8	511.7	501.3	490.3	486.7	472.0	461.6	455.5
27.5°	505.0	503.2	498.3	492.2	487.3	478.7	467.7	464.7	451.9	442.7	437.8
30°	469.0	467.7	462.9	457.4	453.7	445.8	436.0	434.8	423.2	416.4	411.6
32.5°	424.4	423.2	420.1	414.6	411.6	404.8	395.7	396.9	387.1	381.6	379.8
35°	376.8	373.1	371.3	366.4	362.7	357.8	349.9	351.7	346.2	341.9	341.3
37.5°	323.0	319.4	318.1	314.5	311.4	307.1	301.0	303.5	301.0	299.2	301.0
40°	266.8	263.8	262.6	258.9	257.7	254.6	250.4	256.5	253.4	257.1	257.7
42.5°	210.7	207.6	207.6	205.2	203.3	202.7	199.7	207.6	207.6	213.7	216.8
45°	149.0	149.6	148.4	149.0	147.8	149.6	147.8	153.3	161.2	169.1	174.0
47.5°	98.9	97.1	99.5	98.9	98.3	100.8	103.2	108.7	117.9	128.8	135.6
50°	59.8	59.8	61.1	62.9	64.1	65.9	69.6	76.3	86.7	97.7	105.6
52.5°	34.2	33.6	34.8	35.4	38.5	40.9	45.2	52.5	62.9	75.1	82.4
55°	18.3	18.3	18.9	20.8	22.6	25.6	29.9	36.6	46.4	58.6	65.9
57.5°	11.0	11.0	11.6	12.2	14.0	16.5	20.2	25.6	34.2	44.6	51.3
60°	7.3	7.9	7.9	8.5	9.8	11.0	14.0	17.7	24.4	32.4	37.9
62.5°	6.1	6.1	6.1	6.7	7.3	7.9	9.8	12.8	17.1	23.2	27.5
65°	4.9	4.9	4.9	4.9	5.5	6.1	7.3	9.2	12.2	15.9	18.3
67.5°	3.7	3.7	4.3	4.3	4.3	4.9	5.5	6.7	8.5	11.0	12.8
70°	3.1	3.1	3.1	3.1	3.7	3.7	4.3	4.9	6.1	7.9	9.2
72.5°	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.7	4.3	5.5	6.1
75°	1.8	1.8	1.8	1.8	2.4	2.4	2.4	3.1	3.1	3.7	4.3
77.5°	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8	2.4	2.4	2.4
80°	0.6	0.6	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.8	1.8
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: P212702

CATALOG NUMBER: LD4B10D010 EU4B10209050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2	462.2
2.5°	453.7	461.6	452.5	454.3	451.3	456.7	449.4	451.3	452.5	451.3	451.9
5°	454.3	460.4	450.0	451.9	447.0	450.6	443.9	444.5	444.5	443.3	442.7
7.5°	456.1	459.8	448.8	448.2	442.1	445.8	437.8	436.6	436.0	434.2	434.8
10°	456.7	458.0	446.4	443.9	436.6	437.8	429.9	427.4	425.6	424.4	423.8
12.5°	461.0	459.8	446.4	442.1	432.9	432.3	423.8	420.1	417.1	415.8	415.2
15°	466.5	462.2	447.6	441.5	431.1	428.7	419.5	415.8	411.6	410.3	409.1
17.5°	469.0	462.2	446.4	438.4	426.8	423.8	414.6	409.7	405.5	403.6	402.4
20°	465.9	457.4	441.5	432.9	420.7	416.4	407.3	401.8	397.5	395.7	394.5
22.5°	459.2	449.4	434.2	425.6	413.4	407.9	400.0	395.1	390.2	389.6	387.7
25°	447.6	437.8	425.0	416.4	405.5	400.0	392.6	388.4	383.5	382.9	382.3
27.5°	430.5	421.3	411.6	403.6	393.9	389.6	384.1	379.8	375.5	375.5	374.3
30°	406.1	400.0	391.4	386.5	378.6	374.3	370.6	367.6	363.3	363.9	362.7
32.5°	374.9	371.9	365.8	363.3	357.2	356.0	352.3	349.9	346.2	347.4	346.2
35°	340.1	336.5	336.5	335.2	332.2	331.6	329.7	328.5	326.1	326.7	326.7
37.5°	300.4	300.4	304.1	304.7	304.1	305.3	304.7	304.7	302.3	303.5	302.9
40°	259.5	263.2	269.9	273.6	274.8	277.2	280.3	279.1	277.8	279.7	279.1
42.5°	219.8	227.2	237.5	243.6	247.9	251.6	255.9	255.9	255.2	257.7	257.1
45°	182.0	188.7	202.7	213.1	220.4	225.9	230.8	232.6	233.3	235.7	235.1
47.5°	144.7	156.3	172.8	185.0	194.2	200.9	207.6	210.1	211.9	214.9	214.9
50°	114.8	129.5	148.4	160.6	171.6	178.9	185.6	189.3	191.7	194.2	194.2
52.5°	92.2	107.5	125.8	138.6	149.0	156.9	163.6	167.9	169.8	172.8	172.8
55°	75.1	89.2	106.2	117.9	128.2	135.6	141.1	144.7	146.5	149.0	149.0
57.5°	59.2	72.7	86.7	97.1	105.6	111.1	116.0	117.2	117.9	119.7	120.3
60°	44.6	55.0	66.6	74.5	80.6	84.3	87.9	87.3	86.7	87.9	86.7
62.5°	31.8	39.1	47.6	52.5	57.4	59.2	61.1	59.8	58.6	59.2	59.2
65°	21.4	26.9	31.8	35.4	37.9	39.1	39.7	39.1	38.5	39.1	38.5
67.5°	14.7	17.7	21.4	23.2	25.0	25.6	26.3	25.6	25.6	25.6	25.0
70°	9.8	11.6	14.0	15.3	15.9	16.5	17.1	16.5	16.5	16.5	16.5
72.5°	6.7	7.9	8.5	9.8	10.4	10.4	10.4	10.4	10.4	10.4	10.4
75°	4.3	4.9	5.5	6.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7
77.5°	3.1	3.1	3.7	3.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3
80°	1.8	1.8	2.4	2.4	2.4	2.4	3.1	2.4	3.1	3.1	3.1
82.5°	1.2	1.2	1.2	1.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P212702

CATALOG NUMBER: LD4B10D010 EU4B10209050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	462.2	462.2	462.2	462.2
2.5°	451.9	450.6	447.0	451.3
5°	442.1	440.9	437.8	440.9
7.5°	432.3	430.5	428.0	429.9
10°	420.7	419.5	416.4	418.3
12.5°	412.2	409.7	407.9	408.5
15°	406.7	404.2	402.4	403.0
17.5°	399.3	396.9	395.1	395.1
20°	391.4	389.0	387.7	387.1
22.5°	384.7	382.9	382.3	380.4
25°	378.6	377.4	377.4	374.9
27.5°	371.9	370.0	370.0	367.6
30°	360.3	359.7	359.7	357.8
32.5°	345.0	343.2	344.4	341.3
35°	324.2	323.0	324.9	322.4
37.5°	301.6	301.0	302.3	300.4
40°	277.8	277.8	279.7	276.6
42.5°	257.1	257.1	258.9	255.9
45°	234.5	236.3	238.1	235.7
47.5°	214.9	216.2	218.6	216.2
50°	195.4	196.6	198.5	196.0
52.5°	174.0	175.2	177.1	175.2
55°	149.6	150.8	152.7	151.4
57.5°	120.3	119.1	122.1	119.7
60°	87.3	84.9	85.5	85.5
62.5°	58.0	56.8	58.0	56.2
65°	38.5	37.9	37.9	37.9
67.5°	25.6	25.0	25.6	25.0
70°	16.5	16.5	16.5	16.5
72.5°	10.4	10.4	10.4	10.4
75°	6.7	6.7	6.7	6.7
77.5°	4.3	4.3	4.3	4.3
80°	3.1	3.1	3.1	3.1
82.5°	1.8	1.8	1.8	1.8
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)