

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: P212708

Luminaire Tested: **LD4B15D010 EU4B10208040 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212708
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 EU4B10208040 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1405.8 lumens
Efficiency: N/A
Efficacy: 97.7 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

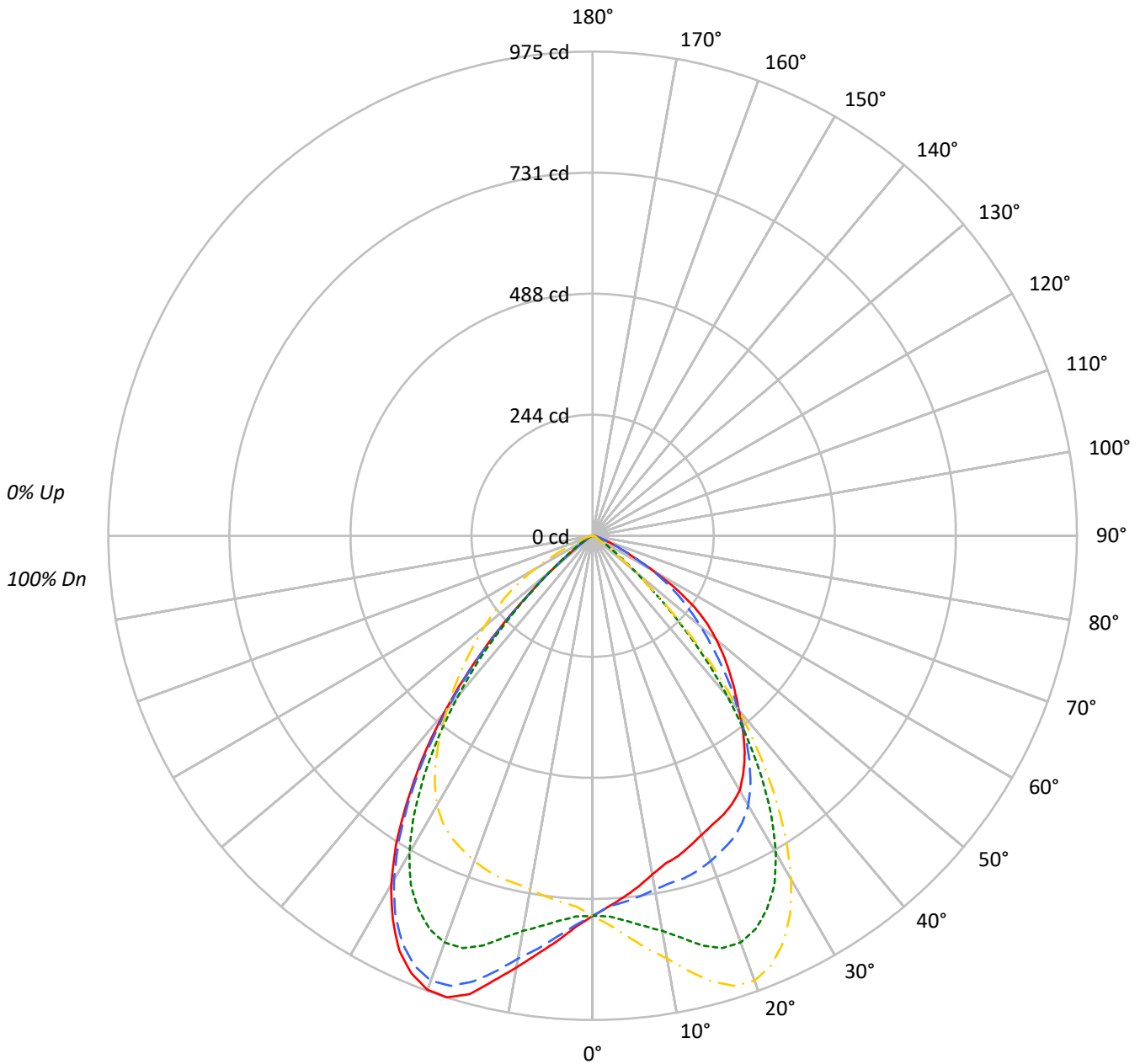
Input Watts (W): 14.39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	94396	94396	94396	94396
5°	90374	96391	101394	96391
10°	86735	101176	110544	101176
15°	85212	109091	122002	109091
20°	84139	114395	127665	114395
25°	84489	112960	125345	112960
30°	84374	105111	115480	105111
35°	80378	89202	97574	89202
40°	73745	67884	74889	67884
45°	68065	43208	46557	43208
50°	62269	20955	20379	20955
55°	53912	9139	6516	9139
60°	34907	4490	2985	4490
65°	18300	2948	2364	2948
70°	9845	2200	1839	2200
75°	5290	1906	1430	1906
80°	3623	1421	710	1421
85°	2830	1415	0	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	5.3
10°-20°	233.4	16.6
20°-30°	362.9	25.8
30°-40°	366.5	26.1
40°-50°	232.1	16.5
50°-60°	97.4	6.9
60°-70°	30.9	2.2
70°-80°	7.1	0.5
80°-90°	1.0	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°	670.9	47.7
0°-40°	1037.4	73.8
0°-60°	1366.9	97.2
0°-90°	1405.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1405.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	765	765	765	765	765	
5°	730	778	819	778	730	69
15°	667	854	955	854	667	188
25°	621	830	921	830	621	286
35°	534	592	648	592	534	332
45°	390	248	267	248	390	301
55°	251	42	30	42	251	216
65°	63	10	8	10	63	69
75°	11	4	3	4	11	14
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°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	747.1	740.0	746.1	748.1	748.1	747.1	749.1	747.1	744.1	756.2	747.1
5°	729.9	724.9	729.9	732.0	733.0	734.0	736.0	736.0	735.0	746.1	740.0
7.5°	711.7	708.7	712.8	715.8	719.8	718.8	721.9	722.9	724.9	738.0	732.0
10°	692.5	689.5	694.6	696.6	701.6	702.6	704.7	707.7	711.7	724.9	722.9
12.5°	676.4	675.3	678.4	682.4	687.5	688.5	690.5	695.6	701.6	715.8	716.8
15°	667.3	666.2	669.3	673.3	677.4	679.4	681.4	688.5	694.6	709.7	713.8
17.5°	654.1	654.1	657.1	661.2	666.2	668.3	671.3	678.4	686.5	701.6	706.7
20°	641.0	642.0	644.0	648.0	653.1	655.1	658.2	665.2	674.3	689.5	696.6
22.5°	629.8	632.9	633.9	636.9	642.0	645.0	646.0	654.1	662.2	675.3	684.4
25°	620.8	624.8	624.8	626.8	632.9	633.9	634.9	643.0	650.1	662.2	671.3
27.5°	608.6	612.7	612.7	615.7	619.7	621.8	621.8	628.8	635.9	645.0	652.1
30°	592.4	595.5	595.5	596.5	600.5	602.6	601.5	608.6	613.7	619.7	626.8
32.5°	565.1	570.2	568.2	571.2	573.2	575.3	573.2	579.3	583.3	589.4	591.4
35°	533.8	537.8	534.8	536.8	540.9	540.9	539.9	543.9	545.9	549.0	550.0
37.5°	497.4	500.4	498.4	499.4	501.5	502.5	500.4	504.5	504.5	505.5	503.5
40°	458.0	463.0	460.0	460.0	462.0	463.0	460.0	462.0	464.0	459.0	454.9
42.5°	423.6	428.7	425.6	425.6	425.6	426.6	422.6	423.6	423.6	416.5	410.5
45°	390.2	394.3	391.3	388.2	389.2	390.2	386.2	385.2	382.2	374.1	365.0
47.5°	357.9	361.9	357.9	355.9	355.9	355.9	350.8	347.8	343.7	332.6	321.5
50°	324.5	328.6	325.5	323.5	321.5	321.5	317.5	313.4	307.3	296.2	284.1
52.5°	290.2	293.2	290.2	288.1	286.1	286.1	281.1	278.0	270.9	259.8	246.7
55°	250.7	252.7	249.7	247.7	246.7	246.7	242.6	239.6	233.5	224.4	212.3
57.5°	198.2	202.2	197.1	199.2	199.2	198.2	195.1	194.1	192.1	184.0	174.9
60°	141.5	141.5	140.5	144.6	143.6	145.6	143.6	144.6	145.6	139.5	133.5
62.5°	93.0	96.0	94.0	96.0	98.1	98.1	97.1	99.1	101.1	98.1	95.0
65°	62.7	62.7	62.7	63.7	63.7	64.7	63.7	64.7	65.7	64.7	62.7
67.5°	41.5	42.5	41.5	42.5	41.5	42.5	42.5	42.5	43.5	42.5	41.5
70°	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	28.3	27.3	26.3
72.5°	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
75°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
77.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
80°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	4.0	5.1	4.0	4.0
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	752.2	749.1	764.3	751.2	758.2	757.2	758.2	764.3	764.3	767.3	766.3
5°	748.1	745.1	762.3	752.2	760.3	760.3	763.3	772.4	772.4	778.5	779.5
7.5°	742.1	743.1	761.3	755.2	764.3	765.3	770.4	781.5	784.5	792.6	796.7
10°	735.0	739.0	758.2	756.2	768.4	769.4	779.5	792.6	796.7	807.8	814.9
12.5°	732.0	739.0	761.3	763.3	775.4	780.5	791.6	808.8	815.9	829.0	839.1
15°	730.9	741.1	765.3	772.4	786.6	793.6	808.8	829.0	837.1	854.3	866.4
17.5°	725.9	739.0	765.3	776.4	791.6	798.7	817.9	841.1	851.3	870.5	884.6
20°	716.8	730.9	757.2	771.4	787.6	797.7	816.9	841.1	851.3	871.5	887.7
22.5°	704.7	718.8	744.1	760.3	774.4	785.5	805.8	829.0	838.1	857.3	873.5
25°	689.5	703.7	724.9	741.1	754.2	764.3	781.5	805.8	811.8	830.0	847.2
27.5°	668.3	681.4	697.6	712.8	724.9	733.0	748.1	769.4	774.4	792.6	806.8
30°	640.0	648.0	662.2	672.3	681.4	689.5	700.6	719.8	721.9	738.0	751.2
32.5°	601.5	605.6	615.7	620.8	628.8	631.9	641.0	657.1	655.1	670.3	681.4
35°	555.0	557.1	557.1	563.1	565.1	566.2	573.2	582.3	579.3	592.4	600.5
37.5°	504.5	503.5	497.4	497.4	498.4	495.4	498.4	502.5	498.4	508.5	515.6
40°	452.9	446.9	435.7	429.7	426.6	425.6	419.6	424.6	414.5	421.6	426.6
42.5°	403.4	393.3	376.1	364.0	358.9	353.8	343.7	343.7	330.6	335.7	336.7
45°	352.8	335.7	312.4	301.3	288.1	280.0	266.9	253.8	244.7	247.7	244.7
47.5°	306.3	286.1	258.8	239.6	224.4	213.3	195.1	180.0	170.9	166.8	162.8
50°	265.9	245.7	214.3	190.1	174.9	161.8	143.6	126.4	115.3	109.2	106.2
52.5°	229.5	208.3	177.9	152.7	136.5	124.4	104.1	86.9	74.8	67.7	63.7
55°	195.1	175.9	147.6	124.4	109.2	97.1	76.8	60.7	49.5	42.5	37.4
57.5°	160.7	143.6	120.3	98.1	84.9	73.8	56.6	42.5	33.4	27.3	23.3
60°	123.3	110.2	91.0	73.8	62.7	53.6	40.4	29.3	23.3	18.2	16.2
62.5°	86.9	78.9	64.7	52.6	45.5	38.4	28.3	21.2	16.2	13.1	12.1
65°	58.6	52.6	44.5	35.4	30.3	26.3	20.2	15.2	12.1	10.1	9.1
67.5°	38.4	35.4	29.3	24.3	21.2	18.2	14.2	11.1	9.1	8.1	7.1
70°	25.3	23.3	19.2	16.2	15.2	13.1	10.1	8.1	7.1	6.1	6.1
72.5°	16.2	14.2	13.1	11.1	10.1	9.1	7.1	6.1	5.1	5.1	5.1
75°	10.1	9.1	8.1	7.1	7.1	6.1	5.1	5.1	4.0	4.0	4.0
77.5°	6.1	6.1	5.1	5.1	4.0	4.0	4.0	3.0	3.0	3.0	3.0
80°	4.0	4.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	771.4	773.4	771.4	777.5	767.3	778.5	774.4	776.4	784.5	781.5	784.5
5°	786.6	790.6	790.6	797.7	788.6	801.7	797.7	801.7	809.8	809.8	813.9
7.5°	805.8	810.8	812.8	819.9	810.8	827.0	822.9	828.0	838.1	838.1	841.1
10°	826.0	832.0	836.1	844.2	834.1	852.3	848.2	855.3	864.4	865.4	870.5
12.5°	851.3	859.3	864.4	871.5	864.4	882.6	878.6	885.6	897.8	898.8	904.8
15°	879.6	889.7	895.7	903.8	895.7	916.0	911.9	920.0	929.1	933.1	939.2
17.5°	897.8	909.9	915.0	924.0	916.0	936.2	931.1	942.2	950.3	952.4	959.4
20°	900.8	911.9	919.0	926.1	919.0	939.2	934.2	943.3	953.4	955.4	960.4
22.5°	887.7	896.8	904.8	910.9	904.8	925.1	918.0	928.1	937.2	939.2	943.3
25°	857.3	868.4	876.5	881.6	875.5	894.7	888.7	897.8	905.9	909.9	910.9
27.5°	814.9	825.0	833.1	836.1	832.0	850.2	842.2	853.3	860.4	862.4	865.4
30°	757.2	766.3	774.4	776.4	773.4	786.6	782.5	792.6	799.7	801.7	803.7
32.5°	686.5	695.6	700.6	702.6	699.6	712.8	708.7	716.8	724.9	724.9	724.9
35°	606.6	614.7	617.7	623.8	616.7	629.8	625.8	632.9	640.0	640.0	641.0
37.5°	520.7	526.7	528.8	534.8	527.7	539.9	536.8	542.9	549.0	548.0	550.0
40°	428.7	434.7	436.7	441.8	435.7	445.8	443.8	449.9	454.9	454.9	454.9
42.5°	339.7	343.7	343.7	348.8	342.7	351.8	351.8	355.9	360.9	359.9	359.9
45°	246.7	245.7	247.7	246.7	246.7	254.8	254.8	256.8	260.8	258.8	259.8
47.5°	163.8	164.8	160.7	163.8	159.7	166.8	166.8	166.8	169.8	167.8	169.8
50°	104.1	101.1	99.1	99.1	98.1	103.1	101.1	102.1	104.1	102.1	104.1
52.5°	58.6	57.6	55.6	56.6	54.6	55.6	55.6	55.6	56.6	55.6	57.6
55°	34.4	31.3	30.3	30.3	29.3	30.3	29.3	29.3	29.3	28.3	29.3
57.5°	20.2	19.2	18.2	18.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
60°	14.2	13.1	13.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
62.5°	11.1	10.1	10.1	10.1	9.1	9.1	9.1	9.1	9.1	10.1	9.1
65°	8.1	8.1	8.1	8.1	8.1	8.1	7.1	8.1	8.1	8.1	8.1
67.5°	7.1	7.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
70°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	0.0	1.0	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):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	787.6	783.5	774.4	780.5	781.5	777.5	782.5	788.6	782.5	777.5	781.5
5°	816.9	813.9	805.8	810.8	811.8	810.8	813.9	818.9	813.9	810.8	811.8
7.5°	846.2	844.2	835.1	841.1	843.2	841.1	844.2	849.2	844.2	841.1	843.2
10°	874.5	873.5	864.4	872.5	873.5	871.5	874.5	882.6	874.5	871.5	873.5
12.5°	906.9	908.9	898.8	907.9	908.9	906.9	910.9	917.0	910.9	906.9	908.9
15°	944.3	943.3	935.2	942.2	944.3	942.2	947.3	955.4	947.3	942.2	944.3
17.5°	962.5	962.5	956.4	963.5	964.5	964.5	968.5	974.6	968.5	964.5	964.5
20°	963.5	964.5	957.4	965.5	965.5	965.5	969.5	972.6	969.5	965.5	965.5
22.5°	947.3	948.3	941.2	948.3	948.3	949.3	951.3	953.4	951.3	949.3	948.3
25°	916.0	917.0	910.9	917.0	916.0	916.0	918.0	921.0	918.0	916.0	916.0
27.5°	869.5	870.5	862.4	869.5	868.4	867.4	870.5	871.5	870.5	867.4	868.4
30°	807.8	808.8	801.7	807.8	806.8	805.8	809.8	810.8	809.8	805.8	806.8
32.5°	734.0	732.0	726.9	732.0	730.9	730.9	733.0	736.0	733.0	730.9	730.9
35°	645.0	645.0	642.0	646.0	643.0	647.0	647.0	648.0	647.0	647.0	643.0
37.5°	554.0	554.0	552.0	554.0	553.0	557.1	557.1	560.1	557.1	557.1	553.0
40°	459.0	459.0	457.0	459.0	462.0	462.0	461.0	465.1	461.0	462.0	462.0
42.5°	362.9	362.9	361.9	367.0	367.0	367.0	364.0	368.0	364.0	367.0	367.0
45°	263.9	261.8	260.8	260.8	261.8	265.9	261.8	266.9	261.8	265.9	261.8
47.5°	167.8	168.8	169.8	172.9	170.9	169.8	169.8	172.9	169.8	169.8	170.9
50°	103.1	104.1	104.1	106.2	103.1	105.1	104.1	106.2	104.1	105.1	103.1
52.5°	56.6	56.6	56.6	58.6	56.6	57.6	56.6	58.6	56.6	57.6	56.6
55°	29.3	29.3	29.3	30.3	29.3	29.3	29.3	30.3	29.3	29.3	29.3
57.5°	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
60°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
62.5°	10.1	9.1	9.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
65°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
67.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
70°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P212708

CATALOG NUMBER: LD4B15D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	780.5	774.4	783.5	787.6	784.5	781.5	784.5	776.4	774.4	778.5	767.3
5°	810.8	805.8	813.9	816.9	813.9	809.8	809.8	801.7	797.7	801.7	788.6
7.5°	841.1	835.1	844.2	846.2	841.1	838.1	838.1	828.0	822.9	827.0	810.8
10°	872.5	864.4	873.5	874.5	870.5	865.4	864.4	855.3	848.2	852.3	834.1
12.5°	907.9	898.8	908.9	906.9	904.8	898.8	897.8	885.6	878.6	882.6	864.4
15°	942.2	935.2	943.3	944.3	939.2	933.1	929.1	920.0	911.9	916.0	895.7
17.5°	963.5	956.4	962.5	962.5	959.4	952.4	950.3	942.2	931.1	936.2	916.0
20°	965.5	957.4	964.5	963.5	960.4	955.4	953.4	943.3	934.2	939.2	919.0
22.5°	948.3	941.2	948.3	947.3	943.3	939.2	937.2	928.1	918.0	925.1	904.8
25°	917.0	910.9	917.0	916.0	910.9	909.9	905.9	897.8	888.7	894.7	875.5
27.5°	869.5	862.4	870.5	869.5	865.4	862.4	860.4	853.3	842.2	850.2	832.0
30°	807.8	801.7	808.8	807.8	803.7	801.7	799.7	792.6	782.5	786.6	773.4
32.5°	732.0	726.9	732.0	734.0	724.9	724.9	724.9	716.8	708.7	712.8	699.6
35°	646.0	642.0	645.0	645.0	641.0	640.0	640.0	632.9	625.8	629.8	616.7
37.5°	554.0	552.0	554.0	554.0	550.0	548.0	549.0	542.9	536.8	539.9	527.7
40°	459.0	457.0	459.0	459.0	454.9	454.9	454.9	449.9	443.8	445.8	435.7
42.5°	367.0	361.9	362.9	362.9	359.9	359.9	360.9	355.9	351.8	351.8	342.7
45°	260.8	260.8	261.8	263.9	259.8	258.8	260.8	256.8	254.8	254.8	246.7
47.5°	172.9	169.8	168.8	167.8	169.8	167.8	169.8	166.8	166.8	166.8	159.7
50°	106.2	104.1	104.1	103.1	104.1	102.1	104.1	102.1	101.1	103.1	98.1
52.5°	58.6	56.6	56.6	56.6	57.6	55.6	56.6	55.6	55.6	55.6	54.6
55°	30.3	29.3	29.3	29.3	29.3	28.3	29.3	29.3	29.3	30.3	29.3
57.5°	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
60°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
62.5°	10.1	9.1	9.1	10.1	9.1	10.1	9.1	9.1	9.1	9.1	9.1
65°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.1	8.1	8.1
67.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
70°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	777.5	771.4	773.4	771.4	766.3	767.3	764.3	764.3	758.2	757.2	758.2
5°	797.7	790.6	790.6	786.6	779.5	778.5	772.4	772.4	763.3	760.3	760.3
7.5°	819.9	812.8	810.8	805.8	796.7	792.6	784.5	781.5	770.4	765.3	764.3
10°	844.2	836.1	832.0	826.0	814.9	807.8	796.7	792.6	779.5	769.4	768.4
12.5°	871.5	864.4	859.3	851.3	839.1	829.0	815.9	808.8	791.6	780.5	775.4
15°	903.8	895.7	889.7	879.6	866.4	854.3	837.1	829.0	808.8	793.6	786.6
17.5°	924.0	915.0	909.9	897.8	884.6	870.5	851.3	841.1	817.9	798.7	791.6
20°	926.1	919.0	911.9	900.8	887.7	871.5	851.3	841.1	816.9	797.7	787.6
22.5°	910.9	904.8	896.8	887.7	873.5	857.3	838.1	829.0	805.8	785.5	774.4
25°	881.6	876.5	868.4	857.3	847.2	830.0	811.8	805.8	781.5	764.3	754.2
27.5°	836.1	833.1	825.0	814.9	806.8	792.6	774.4	769.4	748.1	733.0	724.9
30°	776.4	774.4	766.3	757.2	751.2	738.0	721.9	719.8	700.6	689.5	681.4
32.5°	702.6	700.6	695.6	686.5	681.4	670.3	655.1	657.1	641.0	631.9	628.8
35°	623.8	617.7	614.7	606.6	600.5	592.4	579.3	582.3	573.2	566.2	565.1
37.5°	534.8	528.8	526.7	520.7	515.6	508.5	498.4	502.5	498.4	495.4	498.4
40°	441.8	436.7	434.7	428.7	426.6	421.6	414.5	424.6	419.6	425.6	426.6
42.5°	348.8	343.7	343.7	339.7	336.7	335.7	330.6	343.7	343.7	353.8	358.9
45°	246.7	247.7	245.7	246.7	244.7	247.7	244.7	253.8	266.9	280.0	288.1
47.5°	163.8	160.7	164.8	163.8	162.8	166.8	170.9	180.0	195.1	213.3	224.4
50°	99.1	99.1	101.1	104.1	106.2	109.2	115.3	126.4	143.6	161.8	174.9
52.5°	56.6	55.6	57.6	58.6	63.7	67.7	74.8	86.9	104.1	124.4	136.5
55°	30.3	30.3	31.3	34.4	37.4	42.5	49.5	60.7	76.8	97.1	109.2
57.5°	18.2	18.2	19.2	20.2	23.3	27.3	33.4	42.5	56.6	73.8	84.9
60°	12.1	13.1	13.1	14.2	16.2	18.2	23.3	29.3	40.4	53.6	62.7
62.5°	10.1	10.1	10.1	11.1	12.1	13.1	16.2	21.2	28.3	38.4	45.5
65°	8.1	8.1	8.1	8.1	9.1	10.1	12.1	15.2	20.2	26.3	30.3
67.5°	6.1	6.1	7.1	7.1	7.1	8.1	9.1	11.1	14.2	18.2	21.2
70°	5.1	5.1	5.1	5.1	6.1	6.1	7.1	8.1	10.1	13.1	15.2
72.5°	4.0	4.0	4.0	4.0	5.1	5.1	5.1	6.1	7.1	9.1	10.1
75°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	5.1	5.1	6.1	7.1
77.5°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
80°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
85°	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	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: P212708

CATALOG NUMBER: LD4B15D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3	765.3
2.5°	751.2	764.3	749.1	752.2	747.1	756.2	744.1	747.1	749.1	747.1	748.1
5°	752.2	762.3	745.1	748.1	740.0	746.1	735.0	736.0	736.0	734.0	733.0
7.5°	755.2	761.3	743.1	742.1	732.0	738.0	724.9	722.9	721.9	718.8	719.8
10°	756.2	758.2	739.0	735.0	722.9	724.9	711.7	707.7	704.7	702.6	701.6
12.5°	763.3	761.3	739.0	732.0	716.8	715.8	701.6	695.6	690.5	688.5	687.5
15°	772.4	765.3	741.1	730.9	713.8	709.7	694.6	688.5	681.4	679.4	677.4
17.5°	776.4	765.3	739.0	725.9	706.7	701.6	686.5	678.4	671.3	668.3	666.2
20°	771.4	757.2	730.9	716.8	696.6	689.5	674.3	665.2	658.2	655.1	653.1
22.5°	760.3	744.1	718.8	704.7	684.4	675.3	662.2	654.1	646.0	645.0	642.0
25°	741.1	724.9	703.7	689.5	671.3	662.2	650.1	643.0	634.9	633.9	632.9
27.5°	712.8	697.6	681.4	668.3	652.1	645.0	635.9	628.8	621.8	621.8	619.7
30°	672.3	662.2	648.0	640.0	626.8	619.7	613.7	608.6	601.5	602.6	600.5
32.5°	620.8	615.7	605.6	601.5	591.4	589.4	583.3	579.3	573.2	575.3	573.2
35°	563.1	557.1	557.1	555.0	550.0	549.0	545.9	543.9	539.9	540.9	540.9
37.5°	497.4	497.4	503.5	504.5	503.5	505.5	504.5	504.5	500.4	502.5	501.5
40°	429.7	435.7	446.9	452.9	454.9	459.0	464.0	462.0	460.0	463.0	462.0
42.5°	364.0	376.1	393.3	403.4	410.5	416.5	423.6	423.6	422.6	426.6	425.6
45°	301.3	312.4	335.7	352.8	365.0	374.1	382.2	385.2	386.2	390.2	389.2
47.5°	239.6	258.8	286.1	306.3	321.5	332.6	343.7	347.8	350.8	355.9	355.9
50°	190.1	214.3	245.7	265.9	284.1	296.2	307.3	313.4	317.5	321.5	321.5
52.5°	152.7	177.9	208.3	229.5	246.7	259.8	270.9	278.0	281.1	286.1	286.1
55°	124.4	147.6	175.9	195.1	212.3	224.4	233.5	239.6	242.6	246.7	246.7
57.5°	98.1	120.3	143.6	160.7	174.9	184.0	192.1	194.1	195.1	198.2	199.2
60°	73.8	91.0	110.2	123.3	133.5	139.5	145.6	144.6	143.6	145.6	143.6
62.5°	52.6	64.7	78.9	86.9	95.0	98.1	101.1	99.1	97.1	98.1	98.1
65°	35.4	44.5	52.6	58.6	62.7	64.7	65.7	64.7	63.7	64.7	63.7
67.5°	24.3	29.3	35.4	38.4	41.5	42.5	43.5	42.5	42.5	42.5	41.5
70°	16.2	19.2	23.3	25.3	26.3	27.3	28.3	27.3	27.3	27.3	27.3
72.5°	11.1	13.1	14.2	16.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
75°	7.1	8.1	9.1	10.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
77.5°	5.1	5.1	6.1	6.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
80°	3.0	3.0	4.0	4.0	4.0	4.0	5.1	4.0	5.1	5.1	5.1
82.5°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	2.0	2.0
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: P212708

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CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	765.3	765.3	765.3	765.3
2.5°	748.1	746.1	740.0	747.1
5°	732.0	729.9	724.9	729.9
7.5°	715.8	712.8	708.7	711.7
10°	696.6	694.6	689.5	692.5
12.5°	682.4	678.4	675.3	676.4
15°	673.3	669.3	666.2	667.3
17.5°	661.2	657.1	654.1	654.1
20°	648.0	644.0	642.0	641.0
22.5°	636.9	633.9	632.9	629.8
25°	626.8	624.8	624.8	620.8
27.5°	615.7	612.7	612.7	608.6
30°	596.5	595.5	595.5	592.4
32.5°	571.2	568.2	570.2	565.1
35°	536.8	534.8	537.8	533.8
37.5°	499.4	498.4	500.4	497.4
40°	460.0	460.0	463.0	458.0
42.5°	425.6	425.6	428.7	423.6
45°	388.2	391.3	394.3	390.2
47.5°	355.9	357.9	361.9	357.9
50°	323.5	325.5	328.6	324.5
52.5°	288.1	290.2	293.2	290.2
55°	247.7	249.7	252.7	250.7
57.5°	199.2	197.1	202.2	198.2
60°	144.6	140.5	141.5	141.5
62.5°	96.0	94.0	96.0	93.0
65°	63.7	62.7	62.7	62.7
67.5°	42.5	41.5	42.5	41.5
70°	27.3	27.3	27.3	27.3
72.5°	17.2	17.2	17.2	17.2
75°	11.1	11.1	11.1	11.1
77.5°	7.1	7.1	7.1	7.1
80°	5.1	5.1	5.1	5.1
82.5°	3.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0
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)