

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: P212705

Luminaire Tested: **LD4B15D010 EU4B10208027 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212705
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 EU4B10208027 4LBSWL1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1298.5 lumens
Efficiency: N/A
Efficacy: 90.2 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

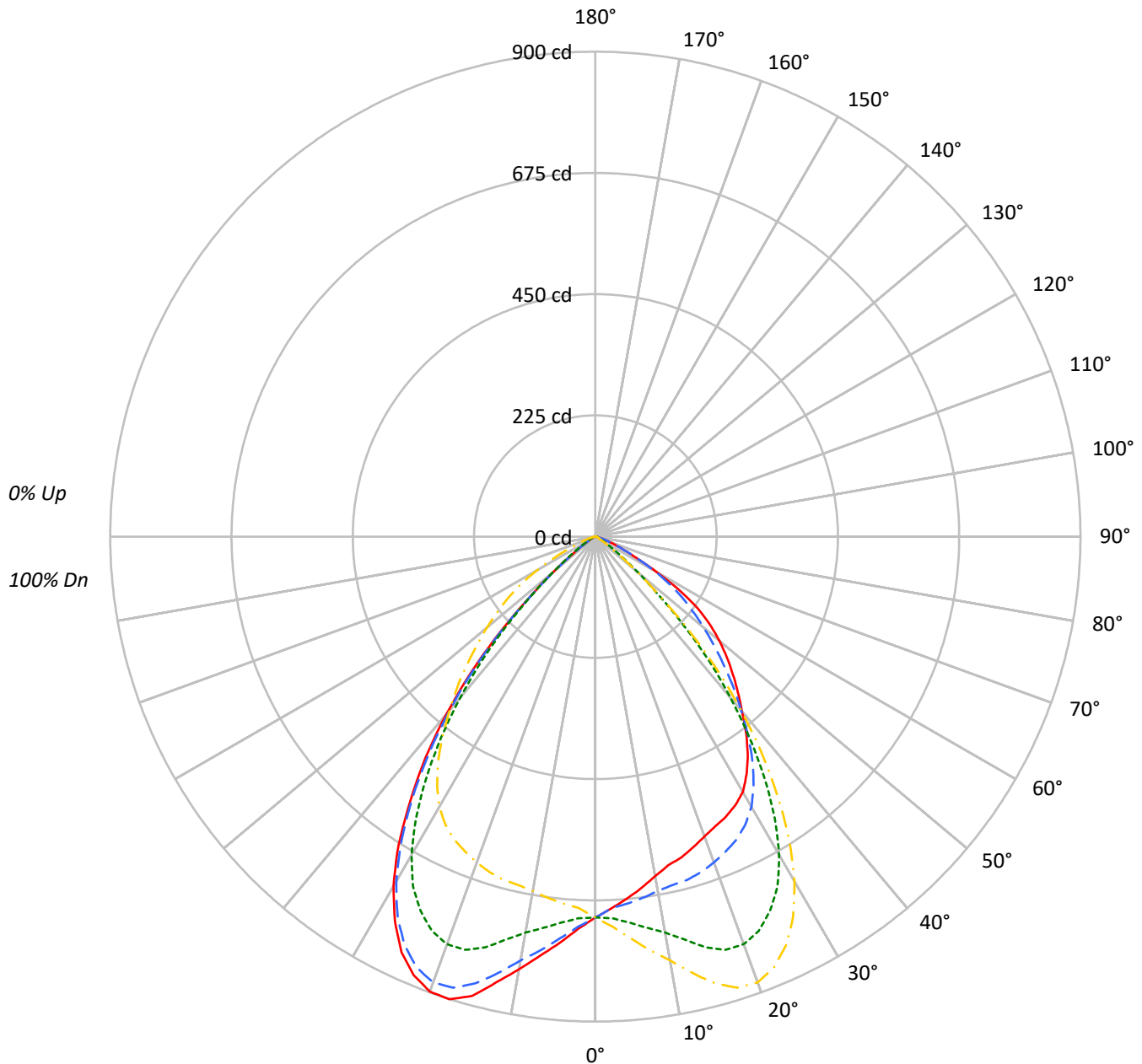
Input Watts (W): 14.39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	87193	87193	87193	87193
5°	83477	89024	93655	89024
10°	80121	93448	102103	93448
15°	78700	100766	112680	100766
20°	77707	105653	117912	105653
25°	78038	104332	115778	104332
30°	77936	97093	106664	97093
35°	74235	82396	90136	82396
40°	68110	62700	69156	62700
45°	62867	39911	42999	39911
50°	57510	19362	18805	19362
55°	49805	8430	6021	8430
60°	32243	4144	2763	4144
65°	16899	2714	2189	2714
70°	9088	2020	1695	2020
75°	4909	1763	1334	1763
80°	3339	1350	639	1350
85°	2689	1274	0	1274



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	5.3
10°-20°	215.6	16.6
20°-30°	335.2	25.8
30°-40°	338.5	26.1
40°-50°	214.4	16.5
50°-60°	90.0	6.9
60°-70°	28.5	2.2
70°-80°	6.5	0.5
80°-90°	0.9	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°	619.7	47.7
0°-40°	958.2	73.8
0°-60°	1262.5	97.2
0°-90°	1298.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	707	707	707	707	707	
5°	674	719	756	719	674	63
15°	616	789	882	789	616	174
25°	573	767	851	767	573	264
35°	493	547	599	547	493	306
45°	360	229	246	229	360	278
55°	232	39	28	39	232	200
65°	58	9	8	9	58	64
75°	10	4	3	4	10	13
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°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	690.1	683.5	689.1	691.0	691.0	690.1	691.9	690.1	687.3	698.5	690.1
5°	674.2	669.5	674.2	676.1	677.0	677.9	679.8	679.8	678.9	689.1	683.5
7.5°	657.4	654.6	658.3	661.1	664.9	663.9	666.7	667.7	669.5	681.7	676.1
10°	639.7	636.9	641.5	643.4	648.1	649.0	650.9	653.7	657.4	669.5	667.7
12.5°	624.7	623.8	626.6	630.3	635.0	635.9	637.8	642.5	648.1	661.1	662.1
15°	616.3	615.4	618.2	621.9	625.6	627.5	629.4	635.9	641.5	655.5	659.3
17.5°	604.2	604.2	607.0	610.7	615.4	617.2	620.0	626.6	634.0	648.1	652.7
20°	592.0	593.0	594.8	598.6	603.2	605.1	607.9	614.4	622.8	636.9	643.4
22.5°	581.8	584.6	585.5	588.3	593.0	595.8	596.7	604.2	611.6	623.8	632.2
25°	573.4	577.1	577.1	579.0	584.6	585.5	586.4	593.9	600.4	611.6	620.0
27.5°	562.1	565.9	565.9	568.7	572.4	574.3	574.3	580.8	587.4	595.8	602.3
30°	547.2	550.0	550.0	550.9	554.7	556.5	555.6	562.1	566.8	572.4	579.0
32.5°	522.0	526.7	524.8	527.6	529.5	531.3	529.5	535.1	538.8	544.4	546.3
35°	493.0	496.8	494.0	495.8	499.6	499.6	498.6	502.4	504.3	507.1	508.0
37.5°	459.4	462.2	460.4	461.3	463.2	464.1	462.2	466.0	466.0	466.9	465.0
40°	423.0	427.7	424.9	424.9	426.7	427.7	424.9	426.7	428.6	423.9	420.2
42.5°	391.3	395.9	393.1	393.1	393.1	394.1	390.3	391.3	391.3	384.7	379.1
45°	360.4	364.2	361.4	358.6	359.5	360.4	356.7	355.8	353.0	345.5	337.1
47.5°	330.6	334.3	330.6	328.7	328.7	328.7	324.0	321.2	317.5	307.2	296.9
50°	299.7	303.5	300.7	298.8	296.9	296.9	293.2	289.5	283.9	273.6	262.4
52.5°	268.0	270.8	268.0	266.1	264.3	264.3	259.6	256.8	250.3	240.0	227.8
55°	231.6	233.4	230.6	228.8	227.8	227.8	224.1	221.3	215.7	207.3	196.1
57.5°	183.0	186.8	182.1	184.0	184.0	183.0	180.2	179.3	177.4	170.0	161.5
60°	130.7	130.7	129.8	133.5	132.6	134.5	132.6	133.5	134.5	128.9	123.3
62.5°	85.9	88.7	86.8	88.7	90.6	90.6	89.6	91.5	93.4	90.6	87.8
65°	57.9	57.9	57.9	58.8	58.8	59.8	58.8	59.8	60.7	59.8	57.9
67.5°	38.3	39.2	38.3	39.2	38.3	39.2	39.2	39.2	40.2	39.2	38.3
70°	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	26.1	25.2	24.3
72.5°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
75°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
77.5°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
80°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.7	4.7	3.7	3.7
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.9	1.9	0.9	0.9
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°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	694.7	691.9	706.0	693.8	700.3	699.4	700.3	706.0	706.0	708.8	707.8
5°	691.0	688.2	704.1	694.7	702.2	702.2	705.0	713.4	713.4	719.0	720.0
7.5°	685.4	686.3	703.2	697.5	706.0	706.9	711.6	721.8	724.6	732.1	735.8
10°	678.9	682.6	700.3	698.5	709.7	710.6	720.0	732.1	735.8	746.1	752.6
12.5°	676.1	682.6	703.2	705.0	716.2	720.9	731.2	747.0	753.6	765.7	775.1
15°	675.1	684.5	706.9	713.4	726.5	733.0	747.0	765.7	773.2	789.1	800.3
17.5°	670.5	682.6	706.9	717.2	731.2	737.7	755.4	776.9	786.3	804.0	817.1
20°	662.1	675.1	699.4	712.5	727.4	736.8	754.5	776.9	786.3	804.9	819.9
22.5°	650.9	663.9	687.3	702.2	715.3	725.6	744.2	765.7	774.1	791.9	806.8
25°	636.9	649.9	669.5	684.5	696.6	706.0	721.8	744.2	749.8	766.6	782.5
27.5°	617.2	629.4	644.3	658.3	669.5	677.0	691.0	710.6	715.3	732.1	745.2
30°	591.1	598.6	611.6	621.0	629.4	636.9	647.1	664.9	666.7	681.7	693.8
32.5°	555.6	559.3	568.7	573.4	580.8	583.6	592.0	607.0	605.1	619.1	629.4
35°	512.7	514.5	514.5	520.1	522.0	522.9	529.5	537.9	535.1	547.2	554.7
37.5°	466.0	465.0	459.4	459.4	460.4	457.6	460.4	464.1	460.4	469.7	476.2
40°	418.3	412.7	402.5	396.9	394.1	393.1	387.5	392.2	382.9	389.4	394.1
42.5°	372.6	363.2	347.4	336.2	331.5	326.8	317.5	317.5	305.4	310.0	311.0
45°	325.9	310.0	288.5	278.3	266.1	258.7	246.5	234.4	226.0	228.8	226.0
47.5°	282.9	264.3	239.1	221.3	207.3	197.0	180.2	166.2	157.8	154.1	150.3
50°	245.6	226.9	198.0	175.6	161.5	149.4	132.6	116.7	106.5	100.9	98.0
52.5°	212.0	192.4	164.3	141.0	126.1	114.9	96.2	80.3	69.1	62.6	58.8
55°	180.2	162.5	136.3	114.9	100.9	89.6	71.0	56.0	45.8	39.2	34.6
57.5°	148.5	132.6	111.1	90.6	78.4	68.2	52.3	39.2	30.8	25.2	21.5
60°	113.9	101.8	84.0	68.2	57.9	49.5	37.4	27.1	21.5	16.8	14.9
62.5°	80.3	72.8	59.8	48.6	42.0	35.5	26.1	19.6	14.9	12.1	11.2
65°	54.2	48.6	41.1	32.7	28.0	24.3	18.7	14.0	11.2	9.3	8.4
67.5°	35.5	32.7	27.1	22.4	19.6	16.8	13.1	10.3	8.4	7.5	6.5
70°	23.3	21.5	17.7	14.9	14.0	12.1	9.3	7.5	6.5	5.6	5.6
72.5°	14.9	13.1	12.1	10.3	9.3	8.4	6.5	5.6	4.7	4.7	4.7
75°	9.3	8.4	7.5	6.5	6.5	5.6	4.7	4.7	3.7	3.7	3.7
77.5°	5.6	5.6	4.7	4.7	3.7	3.7	3.7	2.8	2.8	2.8	2.8
80°	3.7	3.7	2.8	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	712.5	714.4	712.5	718.1	708.8	719.0	715.3	717.2	724.6	721.8	724.6
5°	726.5	730.2	730.2	736.8	728.4	740.5	736.8	740.5	748.0	748.0	751.7
7.5°	744.2	748.9	750.8	757.3	748.9	763.8	760.1	764.8	774.1	774.1	776.9
10°	762.9	768.5	772.3	779.7	770.4	787.2	783.5	790.0	798.4	799.3	804.0
12.5°	786.3	793.7	798.4	804.9	798.4	815.2	811.5	818.0	829.2	830.1	835.8
15°	812.4	821.7	827.3	834.8	827.3	846.0	842.3	849.8	858.2	861.9	867.5
17.5°	829.2	840.4	845.1	853.5	846.0	864.7	860.0	870.3	877.8	879.6	886.2
20°	832.0	842.3	848.8	855.4	848.8	867.5	862.8	871.2	880.6	882.4	887.1
22.5°	819.9	828.3	835.8	841.4	835.8	854.4	847.9	857.2	865.6	867.5	871.2
25°	791.9	802.1	809.6	814.3	808.7	826.4	820.8	829.2	836.7	840.4	841.4
27.5°	752.6	762.0	769.5	772.3	768.5	785.3	777.9	788.1	794.7	796.5	799.3
30°	699.4	707.8	715.3	717.2	714.4	726.5	722.8	732.1	738.6	740.5	742.4
32.5°	634.0	642.5	647.1	649.0	646.2	658.3	654.6	662.1	669.5	669.5	669.5
35°	560.3	567.8	570.6	576.2	569.6	581.8	578.0	584.6	591.1	591.1	592.0
37.5°	480.9	486.5	488.4	494.0	487.4	498.6	495.8	501.5	507.1	506.1	508.0
40°	395.9	401.5	403.4	408.1	402.5	411.8	409.9	415.5	420.2	420.2	420.2
42.5°	313.8	317.5	317.5	322.2	316.6	325.0	325.0	328.7	333.4	332.4	332.4
45°	227.8	226.9	228.8	227.8	227.8	235.3	235.3	237.2	240.9	239.1	240.0
47.5°	151.3	152.2	148.5	151.3	147.5	154.1	154.1	154.1	156.9	155.0	156.9
50°	96.2	93.4	91.5	91.5	90.6	95.2	93.4	94.3	96.2	94.3	96.2
52.5°	54.2	53.2	51.4	52.3	50.4	51.4	51.4	51.4	52.3	51.4	53.2
55°	31.7	28.9	28.0	28.0	27.1	28.0	27.1	27.1	27.1	26.1	27.1
57.5°	18.7	17.7	16.8	16.8	15.9	15.9	15.9	15.9	15.9	15.9	15.9
60°	13.1	12.1	12.1	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
62.5°	10.3	9.3	9.3	9.3	8.4	8.4	8.4	8.4	8.4	9.3	8.4
65°	7.5	7.5	7.5	7.5	7.5	7.5	6.5	7.5	7.5	7.5	7.5
67.5°	6.5	6.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.0	0.9	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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CATALOG NUMBER: LD4B15D010 EU4B10208027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	727.4	723.7	715.3	720.9	721.8	718.1	722.8	728.4	722.8	718.1	721.8
5°	754.5	751.7	744.2	748.9	749.8	748.9	751.7	756.4	751.7	748.9	749.8
7.5°	781.6	779.7	771.3	776.9	778.8	776.9	779.7	784.4	779.7	776.9	778.8
10°	807.7	806.8	798.4	805.9	806.8	804.9	807.7	815.2	807.7	804.9	806.8
12.5°	837.6	839.5	830.1	838.6	839.5	837.6	841.4	847.0	841.4	837.6	839.5
15°	872.2	871.2	863.8	870.3	872.2	870.3	875.0	882.4	875.0	870.3	872.2
17.5°	889.0	889.0	883.4	889.9	890.8	890.8	894.6	900.2	894.6	890.8	890.8
20°	889.9	890.8	884.3	891.8	891.8	891.8	895.5	898.3	895.5	891.8	891.8
22.5°	875.0	875.9	869.4	875.9	875.9	876.8	878.7	880.6	878.7	876.8	875.9
25°	846.0	847.0	841.4	847.0	846.0	846.0	847.9	850.7	847.9	846.0	846.0
27.5°	803.1	804.0	796.5	803.1	802.1	801.2	804.0	804.9	804.0	801.2	802.1
30°	746.1	747.0	740.5	746.1	745.2	744.2	748.0	748.9	748.0	744.2	745.2
32.5°	677.9	676.1	671.4	676.1	675.1	675.1	677.0	679.8	677.0	675.1	675.1
35°	595.8	595.8	593.0	596.7	593.9	597.6	597.6	598.6	597.6	597.6	593.9
37.5°	511.7	511.7	509.9	511.7	510.8	514.5	514.5	517.3	514.5	514.5	510.8
40°	423.9	423.9	422.1	423.9	426.7	426.7	425.8	429.5	425.8	426.7	426.7
42.5°	335.2	335.2	334.3	339.0	339.0	339.0	336.2	339.9	336.2	339.0	339.0
45°	243.7	241.9	240.9	240.9	241.9	245.6	241.9	246.5	241.9	245.6	241.9
47.5°	155.0	155.9	156.9	159.7	157.8	156.9	156.9	159.7	156.9	156.9	157.8
50°	95.2	96.2	96.2	98.0	95.2	97.1	96.2	98.0	96.2	97.1	95.2
52.5°	52.3	52.3	52.3	54.2	52.3	53.2	52.3	54.2	52.3	53.2	52.3
55°	27.1	27.1	27.1	28.0	27.1	27.1	27.1	28.0	27.1	27.1	27.1
57.5°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
60°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
62.5°	9.3	8.4	8.4	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
65°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
67.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P212705

CATALOG NUMBER: LD4B15D010 EU4B10208027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	720.9	715.3	723.7	727.4	724.6	721.8	724.6	717.2	715.3	719.0	708.8
5°	748.9	744.2	751.7	754.5	751.7	748.0	748.0	740.5	736.8	740.5	728.4
7.5°	776.9	771.3	779.7	781.6	776.9	774.1	774.1	764.8	760.1	763.8	748.9
10°	805.9	798.4	806.8	807.7	804.0	799.3	798.4	790.0	783.5	787.2	770.4
12.5°	838.6	830.1	839.5	837.6	835.8	830.1	829.2	818.0	811.5	815.2	798.4
15°	870.3	863.8	871.2	872.2	867.5	861.9	858.2	849.8	842.3	846.0	827.3
17.5°	889.9	883.4	889.0	889.0	886.2	879.6	877.8	870.3	860.0	864.7	846.0
20°	891.8	884.3	890.8	889.9	887.1	882.4	880.6	871.2	862.8	867.5	848.8
22.5°	875.9	869.4	875.9	875.0	871.2	867.5	865.6	857.2	847.9	854.4	835.8
25°	847.0	841.4	847.0	846.0	841.4	840.4	836.7	829.2	820.8	826.4	808.7
27.5°	803.1	796.5	804.0	803.1	799.3	796.5	794.7	788.1	777.9	785.3	768.5
30°	746.1	740.5	747.0	746.1	742.4	740.5	738.6	732.1	722.8	726.5	714.4
32.5°	676.1	671.4	676.1	677.9	669.5	669.5	669.5	662.1	654.6	658.3	646.2
35°	596.7	593.0	595.8	595.8	592.0	591.1	591.1	584.6	578.0	581.8	569.6
37.5°	511.7	509.9	511.7	511.7	508.0	506.1	507.1	501.5	495.8	498.6	487.4
40°	423.9	422.1	423.9	423.9	420.2	420.2	420.2	415.5	409.9	411.8	402.5
42.5°	339.0	334.3	335.2	335.2	332.4	332.4	333.4	328.7	325.0	325.0	316.6
45°	240.9	240.9	241.9	243.7	240.0	239.1	240.9	237.2	235.3	235.3	227.8
47.5°	159.7	156.9	155.9	155.0	156.9	155.0	156.9	154.1	154.1	154.1	147.5
50°	98.0	96.2	96.2	95.2	96.2	94.3	96.2	94.3	93.4	95.2	90.6
52.5°	54.2	52.3	52.3	52.3	53.2	51.4	52.3	51.4	51.4	51.4	50.4
55°	28.0	27.1	27.1	27.1	27.1	26.1	27.1	27.1	27.1	28.0	27.1
57.5°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
60°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
62.5°	9.3	8.4	8.4	9.3	8.4	9.3	8.4	8.4	8.4	8.4	8.4
65°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	6.5	7.5	7.5
67.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P212705

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CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	718.1	712.5	714.4	712.5	707.8	708.8	706.0	706.0	700.3	699.4	700.3
5°	736.8	730.2	730.2	726.5	720.0	719.0	713.4	713.4	705.0	702.2	702.2
7.5°	757.3	750.8	748.9	744.2	735.8	732.1	724.6	721.8	711.6	706.9	706.0
10°	779.7	772.3	768.5	762.9	752.6	746.1	735.8	732.1	720.0	710.6	709.7
12.5°	804.9	798.4	793.7	786.3	775.1	765.7	753.6	747.0	731.2	720.9	716.2
15°	834.8	827.3	821.7	812.4	800.3	789.1	773.2	765.7	747.0	733.0	726.5
17.5°	853.5	845.1	840.4	829.2	817.1	804.0	786.3	776.9	755.4	737.7	731.2
20°	855.4	848.8	842.3	832.0	819.9	804.9	786.3	776.9	754.5	736.8	727.4
22.5°	841.4	835.8	828.3	819.9	806.8	791.9	774.1	765.7	744.2	725.6	715.3
25°	814.3	809.6	802.1	791.9	782.5	766.6	749.8	744.2	721.8	706.0	696.6
27.5°	772.3	769.5	762.0	752.6	745.2	732.1	715.3	710.6	691.0	677.0	669.5
30°	717.2	715.3	707.8	699.4	693.8	681.7	666.7	664.9	647.1	636.9	629.4
32.5°	649.0	647.1	642.5	634.0	629.4	619.1	605.1	607.0	592.0	583.6	580.8
35°	576.2	570.6	567.8	560.3	554.7	547.2	535.1	537.9	529.5	522.9	522.0
37.5°	494.0	488.4	486.5	480.9	476.2	469.7	460.4	464.1	460.4	457.6	460.4
40°	408.1	403.4	401.5	395.9	394.1	389.4	382.9	392.2	387.5	393.1	394.1
42.5°	322.2	317.5	317.5	313.8	311.0	310.0	305.4	317.5	317.5	326.8	331.5
45°	227.8	228.8	226.9	227.8	226.0	228.8	226.0	234.4	246.5	258.7	266.1
47.5°	151.3	148.5	152.2	151.3	150.3	154.1	157.8	166.2	180.2	197.0	207.3
50°	91.5	91.5	93.4	96.2	98.0	100.9	106.5	116.7	132.6	149.4	161.5
52.5°	52.3	51.4	53.2	54.2	58.8	62.6	69.1	80.3	96.2	114.9	126.1
55°	28.0	28.0	28.9	31.7	34.6	39.2	45.8	56.0	71.0	89.6	100.9
57.5°	16.8	16.8	17.7	18.7	21.5	25.2	30.8	39.2	52.3	68.2	78.4
60°	11.2	12.1	12.1	13.1	14.9	16.8	21.5	27.1	37.4	49.5	57.9
62.5°	9.3	9.3	9.3	10.3	11.2	12.1	14.9	19.6	26.1	35.5	42.0
65°	7.5	7.5	7.5	7.5	8.4	9.3	11.2	14.0	18.7	24.3	28.0
67.5°	5.6	5.6	6.5	6.5	6.5	7.5	8.4	10.3	13.1	16.8	19.6
70°	4.7	4.7	4.7	4.7	5.6	5.6	6.5	7.5	9.3	12.1	14.0
72.5°	3.7	3.7	3.7	3.7	4.7	4.7	4.7	5.6	6.5	8.4	9.3
75°	2.8	2.8	2.8	2.8	3.7	3.7	3.7	4.7	4.7	5.6	6.5
77.5°	1.9	1.9	1.9	1.9	2.8	2.8	2.8	2.8	3.7	3.7	3.7
80°	0.9	0.9	0.9	1.9	1.9	1.9	1.9	1.9	1.9	2.8	2.8
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9	1.9
85°	0.0	0.0	0.9	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P212705

CATALOG NUMBER: LD4B15D010 EU4B10208027 4LBSWL11

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9	706.9
2.5°	693.8	706.0	691.9	694.7	690.1	698.5	687.3	690.1	691.9	690.1	691.0
5°	694.7	704.1	688.2	691.0	683.5	689.1	678.9	679.8	679.8	677.9	677.0
7.5°	697.5	703.2	686.3	685.4	676.1	681.7	669.5	667.7	666.7	663.9	664.9
10°	698.5	700.3	682.6	678.9	667.7	669.5	657.4	653.7	650.9	649.0	648.1
12.5°	705.0	703.2	682.6	676.1	662.1	661.1	648.1	642.5	637.8	635.9	635.0
15°	713.4	706.9	684.5	675.1	659.3	655.5	641.5	635.9	629.4	627.5	625.6
17.5°	717.2	706.9	682.6	670.5	652.7	648.1	634.0	626.6	620.0	617.2	615.4
20°	712.5	699.4	675.1	662.1	643.4	636.9	622.8	614.4	607.9	605.1	603.2
22.5°	702.2	687.3	663.9	650.9	632.2	623.8	611.6	604.2	596.7	595.8	593.0
25°	684.5	669.5	649.9	636.9	620.0	611.6	600.4	593.9	586.4	585.5	584.6
27.5°	658.3	644.3	629.4	617.2	602.3	595.8	587.4	580.8	574.3	574.3	572.4
30°	621.0	611.6	598.6	591.1	579.0	572.4	566.8	562.1	555.6	556.5	554.7
32.5°	573.4	568.7	559.3	555.6	546.3	544.4	538.8	535.1	529.5	531.3	529.5
35°	520.1	514.5	514.5	512.7	508.0	507.1	504.3	502.4	498.6	499.6	499.6
37.5°	459.4	459.4	465.0	466.0	465.0	466.9	466.0	466.0	462.2	464.1	463.2
40°	396.9	402.5	412.7	418.3	420.2	423.9	428.6	426.7	424.9	427.7	426.7
42.5°	336.2	347.4	363.2	372.6	379.1	384.7	391.3	391.3	390.3	394.1	393.1
45°	278.3	288.5	310.0	325.9	337.1	345.5	353.0	355.8	356.7	360.4	359.5
47.5°	221.3	239.1	264.3	282.9	296.9	307.2	317.5	321.2	324.0	328.7	328.7
50°	175.6	198.0	226.9	245.6	262.4	273.6	283.9	289.5	293.2	296.9	296.9
52.5°	141.0	164.3	192.4	212.0	227.8	240.0	250.3	256.8	259.6	264.3	264.3
55°	114.9	136.3	162.5	180.2	196.1	207.3	215.7	221.3	224.1	227.8	227.8
57.5°	90.6	111.1	132.6	148.5	161.5	170.0	177.4	179.3	180.2	183.0	184.0
60°	68.2	84.0	101.8	113.9	123.3	128.9	134.5	133.5	132.6	134.5	132.6
62.5°	48.6	59.8	72.8	80.3	87.8	90.6	93.4	91.5	89.6	90.6	90.6
65°	32.7	41.1	48.6	54.2	57.9	59.8	60.7	59.8	58.8	59.8	58.8
67.5°	22.4	27.1	32.7	35.5	38.3	39.2	40.2	39.2	39.2	39.2	38.3
70°	14.9	17.7	21.5	23.3	24.3	25.2	26.1	25.2	25.2	25.2	25.2
72.5°	10.3	12.1	13.1	14.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
75°	6.5	7.5	8.4	9.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
77.5°	4.7	4.7	5.6	5.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5
80°	2.8	2.8	3.7	3.7	3.7	3.7	4.7	3.7	4.7	4.7	4.7
82.5°	1.9	1.9	1.9	1.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	0.9	0.9	0.9	0.9	0.9	0.9	1.9	0.9	1.9	1.9	1.9
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: P212705

CATALOG NUMBER: LD4B15D010 EU4B10208027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	706.9	706.9	706.9	706.9
2.5°	691.0	689.1	683.5	690.1
5°	676.1	674.2	669.5	674.2
7.5°	661.1	658.3	654.6	657.4
10°	643.4	641.5	636.9	639.7
12.5°	630.3	626.6	623.8	624.7
15°	621.9	618.2	615.4	616.3
17.5°	610.7	607.0	604.2	604.2
20°	598.6	594.8	593.0	592.0
22.5°	588.3	585.5	584.6	581.8
25°	579.0	577.1	577.1	573.4
27.5°	568.7	565.9	565.9	562.1
30°	550.9	550.0	550.0	547.2
32.5°	527.6	524.8	526.7	522.0
35°	495.8	494.0	496.8	493.0
37.5°	461.3	460.4	462.2	459.4
40°	424.9	424.9	427.7	423.0
42.5°	393.1	393.1	395.9	391.3
45°	358.6	361.4	364.2	360.4
47.5°	328.7	330.6	334.3	330.6
50°	298.8	300.7	303.5	299.7
52.5°	266.1	268.0	270.8	268.0
55°	228.8	230.6	233.4	231.6
57.5°	184.0	182.1	186.8	183.0
60°	133.5	129.8	130.7	130.7
62.5°	88.7	86.8	88.7	85.9
65°	58.8	57.9	57.9	57.9
67.5°	39.2	38.3	39.2	38.3
70°	25.2	25.2	25.2	25.2
72.5°	15.9	15.9	15.9	15.9
75°	10.3	10.3	10.3	10.3
77.5°	6.5	6.5	6.5	6.5
80°	4.7	4.7	4.7	4.7
82.5°	2.8	2.8	2.8	2.8
85°	1.9	1.9	1.9	1.9
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)