

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: P212746

Luminaire Tested: **LD4B40D010 EU4B30508035 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212746
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: LD4B40D010 EU4B30508035 4LBSWL1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3801.8 lumens
Efficiency: N/A
Efficacy: 88.4 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

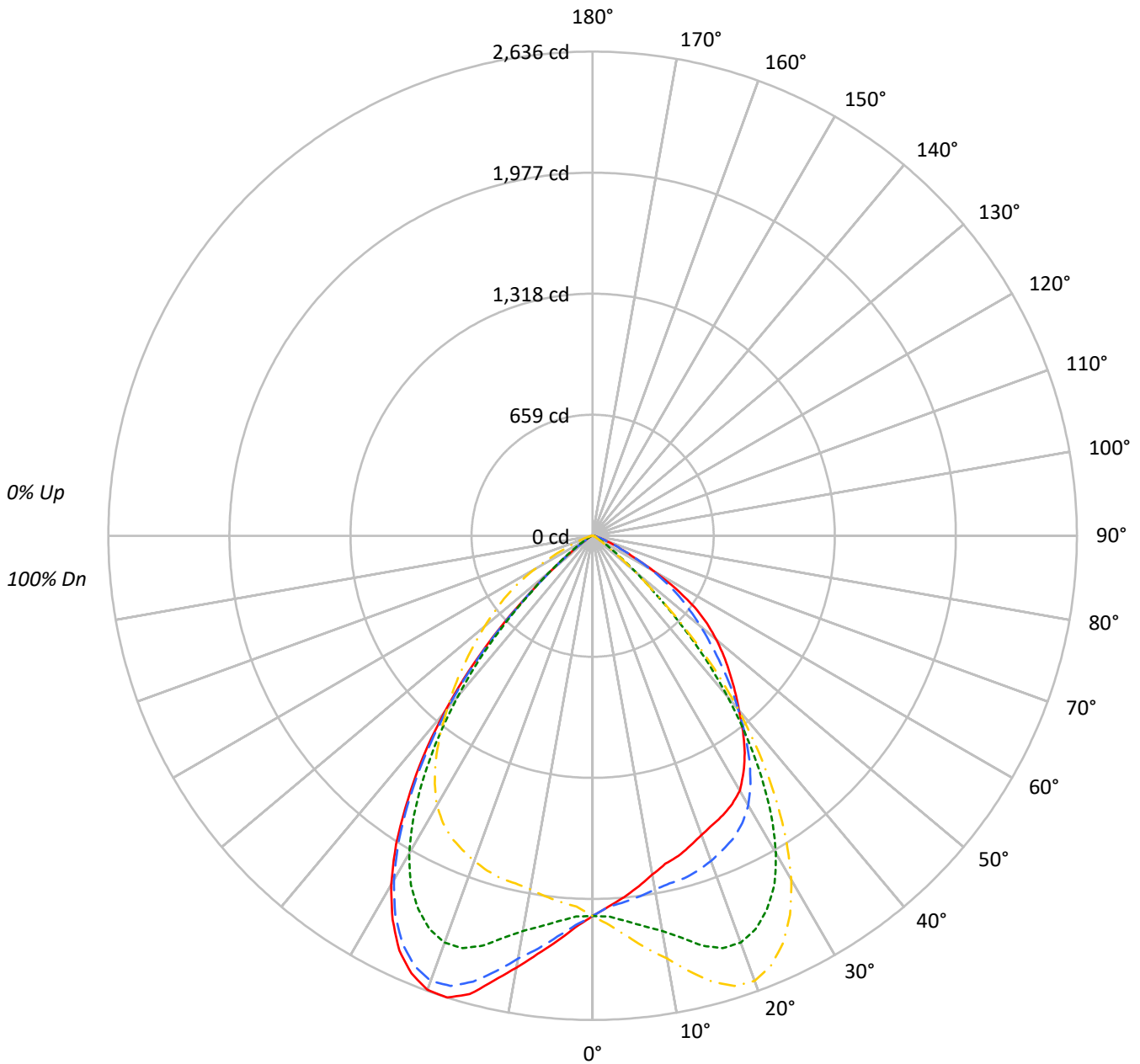
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	255288	255288	255288	255288
5°	244414	260659	274205	260659
10°	234565	273605	298955	273605
15°	230429	295018	329930	295018
20°	227529	309358	345244	309358
25°	228466	305497	338976	305497
30°	228197	284271	312300	284271
35°	217373	241255	263887	241255
40°	199419	183575	202510	183575
45°	184101	116855	125909	116855
50°	168404	56666	55092	56666
55°	145823	24687	17634	24687
60°	94433	12137	8091	12137
65°	49470	7968	6392	7968
70°	26615	5914	4941	5914
75°	14345	5195	3908	5195
80°	9731	3907	1918	3907
85°	7784	3821	0	3821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.8	5.3
10°-20°	631.2	16.6
20°-30°	981.3	25.8
30°-40°	991.2	26.1
40°-50°	627.6	16.5
50°-60°	263.4	6.9
60°-70°	83.5	2.2
70°-80°	19.1	0.5
80°-90°	2.7	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°	1814.3	47.7
0°-40°	2805.5	73.8
0°-60°	3696.5	97.2
0°-90°	3801.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3801.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2070	2070	2070	2070	2070	
5°	1974	2105	2215	2105	1974	185
15°	1804	2310	2584	2310	1804	509
25°	1679	2245	2491	2245	1679	773
35°	1444	1602	1752	1602	1444	897
45°	1055	670	722	670	1055	815
55°	678	115	82	115	678	585
65°	170	27	22	27	170	187
75°	30	11	8	11	30	37
85°	6	3	0	3	6	6
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°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2020.5	2001.3	2017.8	2023.2	2023.2	2020.5	2026.0	2020.5	2012.3	2045.1	2020.5
5°	1974.0	1960.3	1974.0	1979.5	1982.2	1984.9	1990.4	1990.4	1987.7	2017.8	2001.3
7.5°	1924.8	1916.6	1927.5	1935.7	1946.7	1943.9	1952.1	1954.9	1960.3	1995.9	1979.5
10°	1872.8	1864.6	1878.3	1883.8	1897.5	1900.2	1905.7	1913.9	1924.8	1960.3	1954.9
12.5°	1829.1	1826.4	1834.6	1845.5	1859.2	1861.9	1867.4	1881.0	1897.5	1935.7	1938.5
15°	1804.5	1801.8	1810.0	1820.9	1831.8	1837.3	1842.8	1861.9	1878.3	1919.3	1930.3
17.5°	1769.0	1769.0	1777.2	1788.1	1801.8	1807.2	1815.4	1834.6	1856.4	1897.5	1911.1
20°	1733.4	1736.1	1741.6	1752.5	1766.2	1771.7	1779.9	1799.0	1823.6	1864.6	1883.8
22.5°	1703.3	1711.5	1714.3	1722.5	1736.1	1744.3	1747.1	1769.0	1790.8	1826.4	1851.0
25°	1678.7	1689.7	1689.7	1695.1	1711.5	1714.3	1717.0	1738.9	1758.0	1790.8	1815.4
27.5°	1645.9	1656.9	1656.9	1665.1	1676.0	1681.5	1681.5	1700.6	1719.7	1744.3	1763.5
30°	1602.2	1610.4	1610.4	1613.1	1624.0	1629.5	1626.8	1645.9	1659.6	1676.0	1695.1
32.5°	1528.4	1542.0	1536.6	1544.8	1550.2	1555.7	1550.2	1566.6	1577.6	1594.0	1599.4
35°	1443.6	1454.5	1446.3	1451.8	1462.7	1462.7	1460.0	1470.9	1476.4	1484.6	1487.3
37.5°	1345.2	1353.4	1347.9	1350.6	1356.1	1358.8	1353.4	1364.3	1364.3	1367.0	1361.6
40°	1238.5	1252.2	1244.0	1244.0	1249.5	1252.2	1244.0	1249.5	1254.9	1241.3	1230.3
42.5°	1145.6	1159.3	1151.0	1151.0	1151.0	1153.8	1142.8	1145.6	1145.6	1126.4	1110.0
45°	1055.4	1066.3	1058.1	1049.9	1052.6	1055.4	1044.4	1041.7	1033.5	1011.6	987.0
47.5°	967.9	978.8	967.9	962.4	962.4	962.4	948.7	940.5	929.6	899.5	869.4
50°	877.6	888.6	880.4	874.9	869.4	869.4	858.5	847.6	831.2	801.1	768.3
52.5°	784.7	792.9	784.7	779.2	773.7	773.7	760.1	751.9	732.7	702.7	667.1
55°	678.1	683.5	675.3	669.9	667.1	667.1	656.2	648.0	631.6	607.0	574.2
57.5°	535.9	546.8	533.1	538.6	538.6	535.9	527.7	524.9	519.5	497.6	473.0
60°	382.8	382.8	380.0	391.0	388.2	393.7	388.2	391.0	393.7	377.3	360.9
62.5°	251.5	259.7	254.3	259.7	265.2	265.2	262.5	267.9	273.4	265.2	257.0
65°	169.5	169.5	169.5	172.2	172.2	175.0	172.2	175.0	177.7	175.0	169.5
67.5°	112.1	114.8	112.1	114.8	112.1	114.8	114.8	114.8	117.6	114.8	112.1
70°	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	76.6	73.8	71.1
72.5°	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5
75°	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
77.5°	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
80°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	10.9	13.7	10.9	10.9
82.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
85°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	2.7	5.5	2.7	2.7
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°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2034.2	2026.0	2067.0	2031.4	2050.6	2047.8	2050.6	2067.0	2067.0	2075.2	2072.4
5°	2023.2	2015.0	2061.5	2034.2	2056.0	2056.0	2064.2	2088.8	2088.8	2105.2	2108.0
7.5°	2006.8	2009.6	2058.8	2042.4	2067.0	2069.7	2083.4	2113.4	2121.6	2143.5	2154.5
10°	1987.7	1998.6	2050.6	2045.1	2077.9	2080.6	2108.0	2143.5	2154.5	2184.5	2203.7
12.5°	1979.5	1998.6	2058.8	2064.2	2097.0	2110.7	2140.8	2187.3	2206.4	2241.9	2269.3
15°	1976.7	2004.1	2069.7	2088.8	2127.1	2146.3	2187.3	2241.9	2263.8	2310.3	2343.1
17.5°	1963.1	1998.6	2069.7	2099.8	2140.8	2159.9	2211.9	2274.8	2302.1	2354.0	2392.3
20°	1938.5	1976.7	2047.8	2086.1	2129.9	2157.2	2209.1	2274.8	2302.1	2356.8	2400.5
22.5°	1905.7	1943.9	2012.3	2056.0	2094.3	2124.4	2179.1	2241.9	2266.6	2318.5	2362.2
25°	1864.6	1902.9	1960.3	2004.1	2039.6	2067.0	2113.4	2179.1	2195.5	2244.7	2291.2
27.5°	1807.2	1842.8	1886.5	1927.5	1960.3	1982.2	2023.2	2080.6	2094.3	2143.5	2181.8
30°	1730.7	1752.5	1790.8	1818.2	1842.8	1864.6	1894.7	1946.7	1952.1	1995.9	2031.4
32.5°	1626.8	1637.7	1665.1	1678.7	1700.6	1708.8	1733.4	1777.2	1771.7	1812.7	1842.8
35°	1501.0	1506.5	1506.5	1522.9	1528.4	1531.1	1550.2	1574.8	1566.6	1602.2	1624.0
37.5°	1364.3	1361.6	1345.2	1345.2	1347.9	1339.7	1347.9	1358.8	1347.9	1375.2	1394.4
40°	1224.9	1208.5	1178.4	1162.0	1153.8	1151.0	1134.6	1148.3	1121.0	1140.1	1153.8
42.5°	1090.9	1063.6	1017.1	984.3	970.6	956.9	929.6	929.6	894.0	907.7	910.4
45°	954.2	907.7	844.8	814.8	779.2	757.3	721.8	686.3	661.6	669.9	661.6
47.5°	828.4	773.7	699.9	648.0	607.0	576.9	527.7	486.7	462.1	451.1	440.2
50°	719.1	664.4	579.6	514.0	473.0	437.5	388.2	341.8	311.7	295.3	287.1
52.5°	620.6	563.2	481.2	412.8	369.1	336.3	281.6	235.1	202.3	183.2	172.2
55°	527.7	475.7	399.2	336.3	295.3	262.5	207.8	164.0	134.0	114.8	101.2
57.5°	434.7	388.2	325.4	265.2	229.7	199.6	153.1	114.8	90.2	73.8	62.9
60°	333.6	298.0	246.1	199.6	169.5	144.9	109.4	79.3	62.9	49.2	43.7
62.5°	235.1	213.3	175.0	142.2	123.0	103.9	76.6	57.4	43.7	35.5	32.8
65°	158.6	142.2	120.3	95.7	82.0	71.1	54.7	41.0	32.8	27.3	24.6
67.5°	103.9	95.7	79.3	65.6	57.4	49.2	38.3	30.1	24.6	21.9	19.1
70°	68.4	62.9	51.9	43.7	41.0	35.5	27.3	21.9	19.1	16.4	16.4
72.5°	43.7	38.3	35.5	30.1	27.3	24.6	19.1	16.4	13.7	13.7	13.7
75°	27.3	24.6	21.9	19.1	19.1	16.4	13.7	13.7	10.9	10.9	10.9
77.5°	16.4	16.4	13.7	13.7	10.9	10.9	10.9	8.2	8.2	8.2	8.2
80°	10.9	10.9	8.2	8.2	8.2	8.2	5.5	5.5	5.5	5.5	5.5
82.5°	5.5	5.5	5.5	5.5	5.5	5.5	2.7	2.7	2.7	2.7	2.7
85°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2086.1	2091.6	2086.1	2102.5	2075.2	2105.2	2094.3	2099.8	2121.6	2113.4	2121.6
5°	2127.1	2138.1	2138.1	2157.2	2132.6	2168.1	2157.2	2168.1	2190.0	2190.0	2200.9
7.5°	2179.1	2192.7	2198.2	2217.3	2192.7	2236.5	2225.5	2239.2	2266.6	2266.6	2274.8
10°	2233.7	2250.2	2261.1	2283.0	2255.6	2304.8	2293.9	2313.0	2337.6	2340.4	2354.0
12.5°	2302.1	2324.0	2337.6	2356.8	2337.6	2386.9	2375.9	2395.1	2427.9	2430.6	2447.0
15°	2378.7	2406.0	2422.4	2444.3	2422.4	2477.1	2466.1	2488.0	2512.6	2523.6	2540.0
17.5°	2427.9	2460.7	2474.3	2499.0	2477.1	2531.8	2518.1	2548.2	2570.0	2575.5	2594.6
20°	2436.1	2466.1	2485.3	2504.4	2485.3	2540.0	2526.3	2550.9	2578.2	2583.7	2597.4
22.5°	2400.5	2425.1	2447.0	2463.4	2447.0	2501.7	2482.5	2509.9	2534.5	2540.0	2550.9
25°	2318.5	2348.6	2370.5	2384.1	2367.7	2419.7	2403.3	2427.9	2449.7	2460.7	2463.4
27.5°	2203.7	2231.0	2252.9	2261.1	2250.2	2299.4	2277.5	2307.6	2326.7	2332.2	2340.4
30°	2047.8	2072.4	2094.3	2099.8	2091.6	2127.1	2116.2	2143.5	2162.7	2168.1	2173.6
32.5°	1856.4	1881.0	1894.7	1900.2	1892.0	1927.5	1916.6	1938.5	1960.3	1960.3	1960.3
35°	1640.4	1662.3	1670.5	1686.9	1667.8	1703.3	1692.4	1711.5	1730.7	1730.7	1733.4
37.5°	1408.1	1424.5	1429.9	1446.3	1427.2	1460.0	1451.8	1468.2	1484.6	1481.9	1487.3
40°	1159.3	1175.7	1181.1	1194.8	1178.4	1205.7	1200.3	1216.7	1230.3	1230.3	1230.3
42.5°	918.7	929.6	929.6	943.3	926.9	951.5	951.5	962.4	976.1	973.3	973.3
45°	667.1	664.4	669.9	667.1	667.1	689.0	689.0	694.5	705.4	699.9	702.7
47.5°	442.9	445.7	434.7	442.9	432.0	451.1	451.1	451.1	459.3	453.9	459.3
50°	281.6	273.4	267.9	267.9	265.2	278.9	273.4	276.1	281.6	276.1	281.6
52.5°	158.6	155.8	150.4	153.1	147.6	150.4	150.4	150.4	153.1	150.4	155.8
55°	93.0	84.8	82.0	82.0	79.3	82.0	79.3	79.3	79.3	76.6	79.3
57.5°	54.7	51.9	49.2	49.2	46.5	46.5	46.5	46.5	46.5	46.5	46.5
60°	38.3	35.5	35.5	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
62.5°	30.1	27.3	27.3	27.3	24.6	24.6	24.6	24.6	24.6	27.3	24.6
65°	21.9	21.9	21.9	21.9	21.9	21.9	19.1	21.9	21.9	21.9	21.9
67.5°	19.1	19.1	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
70°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
72.5°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
75°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
77.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
80°	5.5	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	0.0	2.7	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: P212746

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2129.9	2118.9	2094.3	2110.7	2113.4	2102.5	2116.2	2132.6	2116.2	2102.5	2113.4
5°	2209.1	2200.9	2179.1	2192.7	2195.5	2192.7	2200.9	2214.6	2200.9	2192.7	2195.5
7.5°	2288.4	2283.0	2258.4	2274.8	2280.2	2274.8	2283.0	2296.6	2283.0	2274.8	2280.2
10°	2365.0	2362.2	2337.6	2359.5	2362.2	2356.8	2365.0	2386.9	2365.0	2356.8	2362.2
12.5°	2452.5	2457.9	2430.6	2455.2	2457.9	2452.5	2463.4	2479.8	2463.4	2452.5	2457.9
15°	2553.6	2550.9	2529.0	2548.2	2553.6	2548.2	2561.8	2583.7	2561.8	2548.2	2553.6
17.5°	2602.8	2602.8	2586.4	2605.6	2608.3	2608.3	2619.3	2635.7	2619.3	2608.3	2608.3
20°	2605.6	2608.3	2589.2	2611.0	2611.0	2611.0	2622.0	2630.2	2622.0	2611.0	2611.0
22.5°	2561.8	2564.6	2545.4	2564.6	2564.6	2567.3	2572.8	2578.2	2572.8	2567.3	2564.6
25°	2477.1	2479.8	2463.4	2479.8	2477.1	2477.1	2482.5	2490.7	2482.5	2477.1	2477.1
27.5°	2351.3	2354.0	2332.2	2351.3	2348.6	2345.8	2354.0	2356.8	2354.0	2345.8	2348.6
30°	2184.5	2187.3	2168.1	2184.5	2181.8	2179.1	2190.0	2192.7	2190.0	2179.1	2181.8
32.5°	1984.9	1979.5	1965.8	1979.5	1976.7	1976.7	1982.2	1990.4	1982.2	1976.7	1976.7
35°	1744.3	1744.3	1736.1	1747.1	1738.9	1749.8	1749.8	1752.5	1749.8	1749.8	1738.9
37.5°	1498.3	1498.3	1492.8	1498.3	1495.5	1506.5	1506.5	1514.7	1506.5	1506.5	1495.5
40°	1241.3	1241.3	1235.8	1241.3	1249.5	1249.5	1246.7	1257.7	1246.7	1249.5	1249.5
42.5°	981.5	981.5	978.8	992.5	992.5	992.5	984.3	995.2	984.3	992.5	992.5
45°	713.6	708.1	705.4	705.4	708.1	719.1	708.1	721.8	708.1	719.1	708.1
47.5°	453.9	456.6	459.3	467.5	462.1	459.3	459.3	467.5	459.3	459.3	462.1
50°	278.9	281.6	281.6	287.1	278.9	284.3	281.6	287.1	281.6	284.3	278.9
52.5°	153.1	153.1	153.1	158.6	153.1	155.8	153.1	158.6	153.1	155.8	153.1
55°	79.3	79.3	79.3	82.0	79.3	79.3	79.3	82.0	79.3	79.3	79.3
57.5°	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5
60°	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
62.5°	27.3	24.6	24.6	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3
65°	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9
67.5°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
70°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
72.5°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
75°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
77.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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: P212746

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2110.7	2094.3	2118.9	2129.9	2121.6	2113.4	2121.6	2099.8	2094.3	2105.2	2075.2
5°	2192.7	2179.1	2200.9	2209.1	2200.9	2190.0	2190.0	2168.1	2157.2	2168.1	2132.6
7.5°	2274.8	2258.4	2283.0	2288.4	2274.8	2266.6	2266.6	2239.2	2225.5	2236.5	2192.7
10°	2359.5	2337.6	2362.2	2365.0	2354.0	2340.4	2337.6	2313.0	2293.9	2304.8	2255.6
12.5°	2455.2	2430.6	2457.9	2452.5	2447.0	2430.6	2427.9	2395.1	2375.9	2386.9	2337.6
15°	2548.2	2529.0	2550.9	2553.6	2540.0	2523.6	2512.6	2488.0	2466.1	2477.1	2422.4
17.5°	2605.6	2586.4	2602.8	2602.8	2594.6	2575.5	2570.0	2548.2	2518.1	2531.8	2477.1
20°	2611.0	2589.2	2608.3	2605.6	2597.4	2583.7	2578.2	2550.9	2526.3	2540.0	2485.3
22.5°	2564.6	2545.4	2564.6	2561.8	2550.9	2540.0	2534.5	2509.9	2482.5	2501.7	2447.0
25°	2479.8	2463.4	2479.8	2477.1	2463.4	2460.7	2449.7	2427.9	2403.3	2419.7	2367.7
27.5°	2351.3	2332.2	2354.0	2351.3	2340.4	2332.2	2326.7	2307.6	2277.5	2299.4	2250.2
30°	2184.5	2168.1	2187.3	2184.5	2173.6	2168.1	2162.7	2143.5	2116.2	2127.1	2091.6
32.5°	1979.5	1965.8	1979.5	1984.9	1960.3	1960.3	1960.3	1938.5	1916.6	1927.5	1892.0
35°	1747.1	1736.1	1744.3	1744.3	1733.4	1730.7	1730.7	1711.5	1692.4	1703.3	1667.8
37.5°	1498.3	1492.8	1498.3	1498.3	1487.3	1481.9	1484.6	1468.2	1451.8	1460.0	1427.2
40°	1241.3	1235.8	1241.3	1241.3	1230.3	1230.3	1230.3	1216.7	1200.3	1205.7	1178.4
42.5°	992.5	978.8	981.5	981.5	973.3	973.3	976.1	962.4	951.5	951.5	926.9
45°	705.4	705.4	708.1	713.6	702.7	699.9	705.4	694.5	689.0	689.0	667.1
47.5°	467.5	459.3	456.6	453.9	459.3	453.9	459.3	451.1	451.1	451.1	432.0
50°	287.1	281.6	281.6	278.9	281.6	276.1	281.6	276.1	273.4	278.9	265.2
52.5°	158.6	153.1	153.1	153.1	155.8	150.4	153.1	150.4	150.4	150.4	147.6
55°	82.0	79.3	79.3	79.3	79.3	76.6	79.3	79.3	79.3	82.0	79.3
57.5°	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5
60°	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
62.5°	27.3	24.6	24.6	27.3	24.6	27.3	24.6	24.6	24.6	24.6	24.6
65°	21.9	21.9	21.9	21.9	21.9	21.9	21.9	21.9	19.1	21.9	21.9
67.5°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
70°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
72.5°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
75°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
77.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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: P212746

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2102.5	2086.1	2091.6	2086.1	2072.4	2075.2	2067.0	2067.0	2050.6	2047.8	2050.6
5°	2157.2	2138.1	2138.1	2127.1	2108.0	2105.2	2088.8	2088.8	2064.2	2056.0	2056.0
7.5°	2217.3	2198.2	2192.7	2179.1	2154.5	2143.5	2121.6	2113.4	2083.4	2069.7	2067.0
10°	2283.0	2261.1	2250.2	2233.7	2203.7	2184.5	2154.5	2143.5	2108.0	2080.6	2077.9
12.5°	2356.8	2337.6	2324.0	2302.1	2269.3	2241.9	2206.4	2187.3	2140.8	2110.7	2097.0
15°	2444.3	2422.4	2406.0	2378.7	2343.1	2310.3	2263.8	2241.9	2187.3	2146.3	2127.1
17.5°	2499.0	2474.3	2460.7	2427.9	2392.3	2354.0	2302.1	2274.8	2211.9	2159.9	2140.8
20°	2504.4	2485.3	2466.1	2436.1	2400.5	2356.8	2302.1	2274.8	2209.1	2157.2	2129.9
22.5°	2463.4	2447.0	2425.1	2400.5	2362.2	2318.5	2266.6	2241.9	2179.1	2124.4	2094.3
25°	2384.1	2370.5	2348.6	2318.5	2291.2	2244.7	2195.5	2179.1	2113.4	2067.0	2039.6
27.5°	2261.1	2252.9	2231.0	2203.7	2181.8	2143.5	2094.3	2080.6	2023.2	1982.2	1960.3
30°	2099.8	2094.3	2072.4	2047.8	2031.4	1995.9	1952.1	1946.7	1894.7	1864.6	1842.8
32.5°	1900.2	1894.7	1881.0	1856.4	1842.8	1812.7	1771.7	1777.2	1733.4	1708.8	1700.6
35°	1686.9	1670.5	1662.3	1640.4	1624.0	1602.2	1566.6	1574.8	1550.2	1531.1	1528.4
37.5°	1446.3	1429.9	1424.5	1408.1	1394.4	1375.2	1347.9	1358.8	1347.9	1339.7	1347.9
40°	1194.8	1181.1	1175.7	1159.3	1153.8	1140.1	1121.0	1148.3	1134.6	1151.0	1153.8
42.5°	943.3	929.6	929.6	918.7	910.4	907.7	894.0	929.6	929.6	956.9	970.6
45°	667.1	669.9	664.4	667.1	661.6	669.9	661.6	686.3	721.8	757.3	779.2
47.5°	442.9	434.7	445.7	442.9	440.2	451.1	462.1	486.7	527.7	576.9	607.0
50°	267.9	267.9	273.4	281.6	287.1	295.3	311.7	341.8	388.2	437.5	473.0
52.5°	153.1	150.4	155.8	158.6	172.2	183.2	202.3	235.1	281.6	336.3	369.1
55°	82.0	82.0	84.8	93.0	101.2	114.8	134.0	164.0	207.8	262.5	295.3
57.5°	49.2	49.2	51.9	54.7	62.9	73.8	90.2	114.8	153.1	199.6	229.7
60°	32.8	35.5	35.5	38.3	43.7	49.2	62.9	79.3	109.4	144.9	169.5
62.5°	27.3	27.3	27.3	30.1	32.8	35.5	43.7	57.4	76.6	103.9	123.0
65°	21.9	21.9	21.9	21.9	24.6	27.3	32.8	41.0	54.7	71.1	82.0
67.5°	16.4	16.4	19.1	19.1	19.1	21.9	24.6	30.1	38.3	49.2	57.4
70°	13.7	13.7	13.7	13.7	16.4	16.4	19.1	21.9	27.3	35.5	41.0
72.5°	10.9	10.9	10.9	10.9	13.7	13.7	13.7	16.4	19.1	24.6	27.3
75°	8.2	8.2	8.2	8.2	10.9	10.9	10.9	13.7	13.7	16.4	19.1
77.5°	5.5	5.5	5.5	5.5	8.2	8.2	8.2	8.2	10.9	10.9	10.9
80°	2.7	2.7	2.7	5.5	5.5	5.5	5.5	5.5	5.5	8.2	8.2
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	5.5	5.5
85°	0.0	0.0	2.7	0.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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: P212746

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7	2069.7
2.5°	2031.4	2067.0	2026.0	2034.2	2020.5	2045.1	2012.3	2020.5	2026.0	2020.5	2023.2
5°	2034.2	2061.5	2015.0	2023.2	2001.3	2017.8	1987.7	1990.4	1990.4	1984.9	1982.2
7.5°	2042.4	2058.8	2009.6	2006.8	1979.5	1995.9	1960.3	1954.9	1952.1	1943.9	1946.7
10°	2045.1	2050.6	1998.6	1987.7	1954.9	1960.3	1924.8	1913.9	1905.7	1900.2	1897.5
12.5°	2064.2	2058.8	1998.6	1979.5	1938.5	1935.7	1897.5	1881.0	1867.4	1861.9	1859.2
15°	2088.8	2069.7	2004.1	1976.7	1930.3	1919.3	1878.3	1861.9	1842.8	1837.3	1831.8
17.5°	2099.8	2069.7	1998.6	1963.1	1911.1	1897.5	1856.4	1834.6	1815.4	1807.2	1801.8
20°	2086.1	2047.8	1976.7	1938.5	1883.8	1864.6	1823.6	1799.0	1779.9	1771.7	1766.2
22.5°	2056.0	2012.3	1943.9	1905.7	1851.0	1826.4	1790.8	1769.0	1747.1	1744.3	1736.1
25°	2004.1	1960.3	1902.9	1864.6	1815.4	1790.8	1758.0	1738.9	1717.0	1714.3	1711.5
27.5°	1927.5	1886.5	1842.8	1807.2	1763.5	1744.3	1719.7	1700.6	1681.5	1681.5	1676.0
30°	1818.2	1790.8	1752.5	1730.7	1695.1	1676.0	1659.6	1645.9	1626.8	1629.5	1624.0
32.5°	1678.7	1665.1	1637.7	1626.8	1599.4	1594.0	1577.6	1566.6	1550.2	1555.7	1550.2
35°	1522.9	1506.5	1506.5	1501.0	1487.3	1484.6	1476.4	1470.9	1460.0	1462.7	1462.7
37.5°	1345.2	1345.2	1361.6	1364.3	1361.6	1367.0	1364.3	1364.3	1353.4	1358.8	1356.1
40°	1162.0	1178.4	1208.5	1224.9	1230.3	1241.3	1254.9	1249.5	1244.0	1252.2	1249.5
42.5°	984.3	1017.1	1063.6	1090.9	1110.0	1126.4	1145.6	1145.6	1142.8	1153.8	1151.0
45°	814.8	844.8	907.7	954.2	987.0	1011.6	1033.5	1041.7	1044.4	1055.4	1052.6
47.5°	648.0	699.9	773.7	828.4	869.4	899.5	929.6	940.5	948.7	962.4	962.4
50°	514.0	579.6	664.4	719.1	768.3	801.1	831.2	847.6	858.5	869.4	869.4
52.5°	412.8	481.2	563.2	620.6	667.1	702.7	732.7	751.9	760.1	773.7	773.7
55°	336.3	399.2	475.7	527.7	574.2	607.0	631.6	648.0	656.2	667.1	667.1
57.5°	265.2	325.4	388.2	434.7	473.0	497.6	519.5	524.9	527.7	535.9	538.6
60°	199.6	246.1	298.0	333.6	360.9	377.3	393.7	391.0	388.2	393.7	388.2
62.5°	142.2	175.0	213.3	235.1	257.0	265.2	273.4	267.9	262.5	265.2	265.2
65°	95.7	120.3	142.2	158.6	169.5	175.0	177.7	175.0	172.2	175.0	172.2
67.5°	65.6	79.3	95.7	103.9	112.1	114.8	117.6	114.8	114.8	114.8	112.1
70°	43.7	51.9	62.9	68.4	71.1	73.8	76.6	73.8	73.8	73.8	73.8
72.5°	30.1	35.5	38.3	43.7	46.5	46.5	46.5	46.5	46.5	46.5	46.5
75°	19.1	21.9	24.6	27.3	30.1	30.1	30.1	30.1	30.1	30.1	30.1
77.5°	13.7	13.7	16.4	16.4	19.1	19.1	19.1	19.1	19.1	19.1	19.1
80°	8.2	8.2	10.9	10.9	10.9	10.9	13.7	10.9	13.7	13.7	13.7
82.5°	5.5	5.5	5.5	5.5	8.2	8.2	8.2	8.2	8.2	8.2	8.2
85°	2.7	2.7	2.7	2.7	2.7	2.7	5.5	2.7	5.5	5.5	5.5
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: P212746

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	2069.7	2069.7	2069.7	2069.7
2.5°	2023.2	2017.8	2001.3	2020.5
5°	1979.5	1974.0	1960.3	1974.0
7.5°	1935.7	1927.5	1916.6	1924.8
10°	1883.8	1878.3	1864.6	1872.8
12.5°	1845.5	1834.6	1826.4	1829.1
15°	1820.9	1810.0	1801.8	1804.5
17.5°	1788.1	1777.2	1769.0	1769.0
20°	1752.5	1741.6	1736.1	1733.4
22.5°	1722.5	1714.3	1711.5	1703.3
25°	1695.1	1689.7	1689.7	1678.7
27.5°	1665.1	1656.9	1656.9	1645.9
30°	1613.1	1610.4	1610.4	1602.2
32.5°	1544.8	1536.6	1542.0	1528.4
35°	1451.8	1446.3	1454.5	1443.6
37.5°	1350.6	1347.9	1353.4	1345.2
40°	1244.0	1244.0	1252.2	1238.5
42.5°	1151.0	1151.0	1159.3	1145.6
45°	1049.9	1058.1	1066.3	1055.4
47.5°	962.4	967.9	978.8	967.9
50°	874.9	880.4	888.6	877.6
52.5°	779.2	784.7	792.9	784.7
55°	669.9	675.3	683.5	678.1
57.5°	538.6	533.1	546.8	535.9
60°	391.0	380.0	382.8	382.8
62.5°	259.7	254.3	259.7	251.5
65°	172.2	169.5	169.5	169.5
67.5°	114.8	112.1	114.8	112.1
70°	73.8	73.8	73.8	73.8
72.5°	46.5	46.5	46.5	46.5
75°	30.1	30.1	30.1	30.1
77.5°	19.1	19.1	19.1	19.1
80°	13.7	13.7	13.7	13.7
82.5°	8.2	8.2	8.2	8.2
85°	5.5	5.5	5.5	5.5
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)