

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: P212747

Luminaire Tested: **LD4B40D010 EU4B30508040 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212747
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 EU4B30508040 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: 3842.9 lumens
Efficiency: N/A
Efficacy: 89.3 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

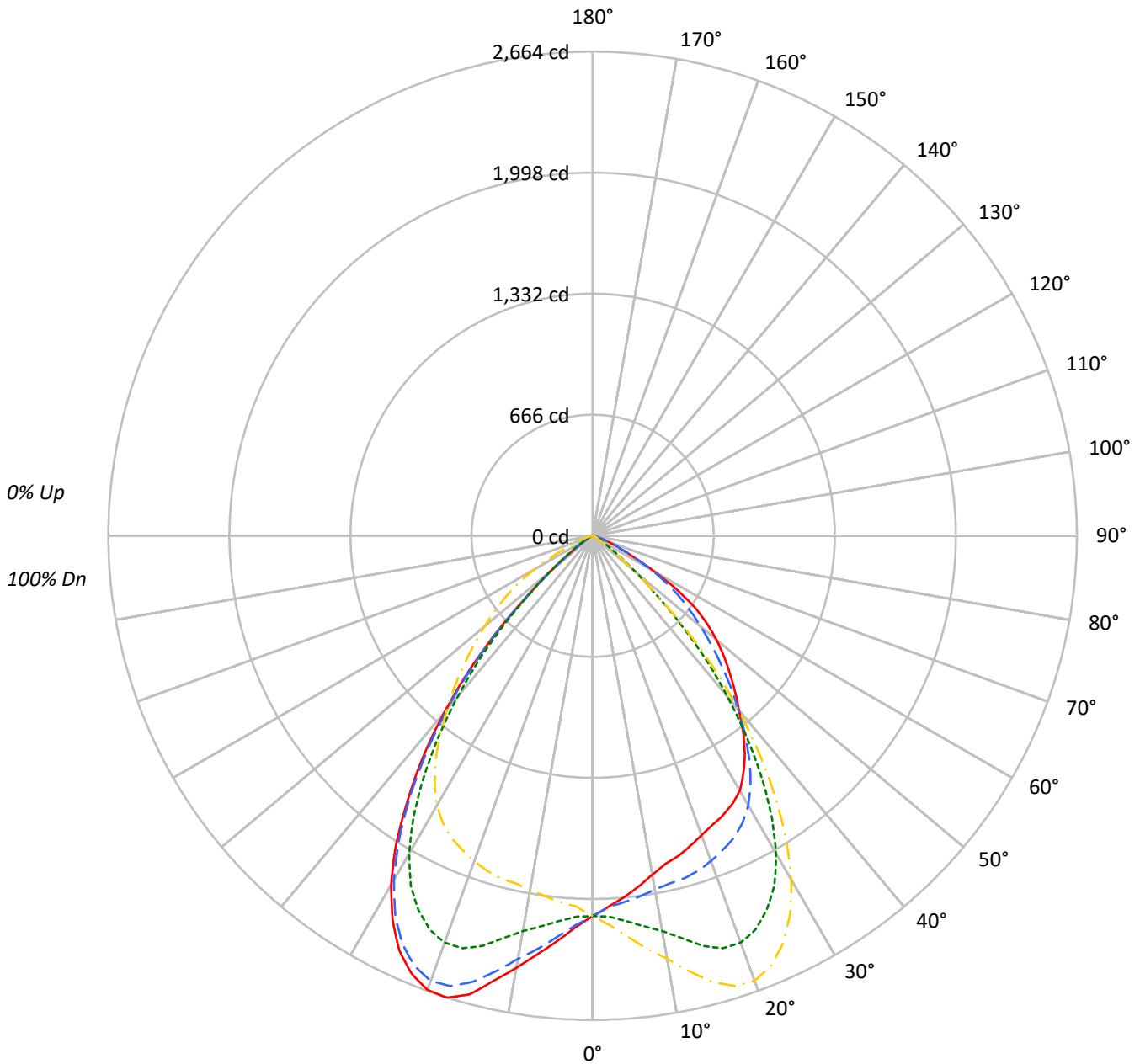
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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			100
1	112	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91			91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82			82
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73			73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60			60
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54			54
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49			49
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45			45
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41			41
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38			38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	258051	258051	258051	258051
5°	247052	263482	277164	263482
10°	237108	276561	302174	276561
15°	232919	298210	333493	298210
20°	229984	312692	348972	312692
25°	230943	308790	342651	308790
30°	230661	287333	315676	287333
35°	219722	243860	266748	243860
40°	201576	185555	204700	185555
45°	186089	118111	127269	118111
50°	170227	57280	55687	57280
55°	147393	24967	17827	24967
60°	95445	12261	8190	12261
65°	49996	8055	6450	8055
70°	26904	5987	4977	5987
75°	14488	5290	3956	5290
80°	9802	3907	1989	3907
85°	7784	3963	0	3963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.9	5.3
10°-20°	638.0	16.6
20°-30°	991.9	25.8
30°-40°	1001.9	26.1
40°-50°	634.4	16.5
50°-60°	266.3	6.9
60°-70°	84.4	2.2
70°-80°	19.3	0.5
80°-90°	2.8	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°	1833.9	47.7
0°-40°	2835.8	73.8
0°-60°	3736.4	97.2
0°-90°	3842.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2092	2092	2092	2092	2092	
5°	1995	2128	2238	2128	1995	187
15°	1824	2335	2612	2335	1824	514
25°	1697	2269	2518	2269	1697	781
35°	1459	1620	1772	1620	1459	906
45°	1067	677	730	677	1067	823
55°	685	116	83	116	685	592
65°	171	28	22	28	171	189
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°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2042.3	2023.0	2039.6	2045.1	2045.1	2042.3	2047.8	2042.3	2034.0	2067.2	2042.3
5°	1995.3	1981.5	1995.3	2000.9	2003.6	2006.4	2011.9	2011.9	2009.2	2039.6	2023.0
7.5°	1945.6	1937.3	1948.4	1956.6	1967.7	1964.9	1973.2	1976.0	1981.5	2017.4	2000.9
10°	1893.1	1884.8	1898.6	1904.1	1918.0	1920.7	1926.2	1934.5	1945.6	1981.5	1976.0
12.5°	1848.9	1846.1	1854.4	1865.4	1879.3	1882.0	1887.6	1901.4	1918.0	1956.6	1959.4
15°	1824.0	1821.2	1829.5	1840.6	1851.6	1857.2	1862.7	1882.0	1898.6	1940.1	1951.1
17.5°	1788.1	1788.1	1796.4	1807.4	1821.2	1826.8	1835.0	1854.4	1876.5	1918.0	1931.8
20°	1752.1	1754.9	1760.4	1771.5	1785.3	1790.8	1799.1	1818.5	1843.3	1884.8	1904.1
22.5°	1721.7	1730.0	1732.8	1741.1	1754.9	1763.2	1766.0	1788.1	1810.2	1846.1	1871.0
25°	1696.9	1707.9	1707.9	1713.4	1730.0	1732.8	1735.6	1757.7	1777.0	1810.2	1835.0
27.5°	1663.7	1674.8	1674.8	1683.0	1694.1	1699.6	1699.6	1719.0	1738.3	1763.2	1782.5
30°	1619.5	1627.8	1627.8	1630.5	1641.6	1647.1	1644.4	1663.7	1677.5	1694.1	1713.4
32.5°	1544.9	1558.7	1553.2	1561.4	1567.0	1572.5	1567.0	1583.6	1594.6	1611.2	1616.7
35°	1459.2	1470.2	1462.0	1467.5	1478.5	1478.5	1475.8	1486.8	1492.4	1500.6	1503.4
37.5°	1359.7	1368.0	1362.5	1365.2	1370.8	1373.5	1368.0	1379.0	1379.0	1381.8	1376.3
40°	1251.9	1265.7	1257.4	1257.4	1263.0	1265.7	1257.4	1263.0	1268.5	1254.7	1243.6
42.5°	1158.0	1171.8	1163.5	1163.5	1163.5	1166.2	1155.2	1158.0	1158.0	1138.6	1122.0
45°	1066.8	1077.8	1069.5	1061.2	1064.0	1066.8	1055.7	1052.9	1044.6	1022.5	997.7
47.5°	978.3	989.4	978.3	972.8	972.8	972.8	959.0	950.7	939.6	909.2	878.8
50°	887.1	898.2	889.9	884.4	878.8	878.8	867.8	856.7	840.1	809.7	776.6
52.5°	793.2	801.5	793.2	787.6	782.1	782.1	768.3	760.0	740.7	710.3	674.3
55°	685.4	690.9	682.6	677.1	674.3	674.3	663.3	655.0	638.4	613.5	580.4
57.5°	541.7	552.7	538.9	544.4	544.4	541.7	533.4	530.6	525.1	503.0	478.1
60°	386.9	386.9	384.1	395.2	392.4	398.0	392.4	395.2	398.0	381.4	364.8
62.5°	254.3	262.5	257.0	262.5	268.1	268.1	265.3	270.8	276.4	268.1	259.8
65°	171.3	171.3	171.3	174.1	174.1	176.9	174.1	176.9	179.6	176.9	171.3
67.5°	113.3	116.1	113.3	116.1	113.3	116.1	116.1	116.1	118.8	116.1	113.3
70°	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	77.4	74.6	71.9
72.5°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
75°	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
77.5°	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
80°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	11.1	13.8	11.1	11.1
82.5°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
85°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	2.8	5.5	2.8	2.8
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°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2056.1	2047.8	2089.3	2053.4	2072.7	2070.0	2072.7	2089.3	2089.3	2097.6	2094.8
5°	2045.1	2036.8	2083.8	2056.1	2078.2	2078.2	2086.5	2111.4	2111.4	2128.0	2130.8
7.5°	2028.5	2031.3	2081.0	2064.4	2089.3	2092.1	2105.9	2136.3	2144.6	2166.7	2177.7
10°	2009.2	2020.2	2072.7	2067.2	2100.4	2103.1	2130.8	2166.7	2177.7	2208.1	2227.5
12.5°	2000.9	2020.2	2081.0	2086.5	2119.7	2133.5	2163.9	2210.9	2230.2	2266.2	2293.8
15°	1998.1	2025.7	2092.1	2111.4	2150.1	2169.4	2210.9	2266.2	2288.3	2335.3	2368.4
17.5°	1984.3	2020.2	2092.1	2122.5	2163.9	2183.3	2235.8	2299.3	2327.0	2379.5	2418.2
20°	1959.4	1998.1	2070.0	2108.6	2152.9	2180.5	2233.0	2299.3	2327.0	2382.2	2426.5
22.5°	1926.2	1964.9	2034.0	2078.2	2116.9	2147.3	2202.6	2266.2	2291.0	2343.6	2387.8
25°	1884.8	1923.5	1981.5	2025.7	2061.7	2089.3	2136.3	2202.6	2219.2	2268.9	2315.9
27.5°	1826.8	1862.7	1906.9	1948.4	1981.5	2003.6	2045.1	2103.1	2116.9	2166.7	2205.4
30°	1749.4	1771.5	1810.2	1837.8	1862.7	1884.8	1915.2	1967.7	1973.2	2017.4	2053.4
32.5°	1644.4	1655.4	1683.0	1696.9	1719.0	1727.3	1752.1	1796.4	1790.8	1832.3	1862.7
35°	1517.2	1522.8	1522.8	1539.3	1544.9	1547.6	1567.0	1591.8	1583.6	1619.5	1641.6
37.5°	1379.0	1376.3	1359.7	1359.7	1362.5	1354.2	1362.5	1373.5	1362.5	1390.1	1409.4
40°	1238.1	1221.5	1191.1	1174.5	1166.2	1163.5	1146.9	1160.7	1133.1	1152.4	1166.2
42.5°	1102.7	1075.0	1028.1	994.9	981.1	967.3	939.6	939.6	903.7	917.5	920.3
45°	964.5	917.5	854.0	823.6	787.6	765.5	729.6	693.7	668.8	677.1	668.8
47.5°	837.4	782.1	707.5	655.0	613.5	583.1	533.4	491.9	467.1	456.0	444.9
50°	726.8	671.6	585.9	519.6	478.1	442.2	392.4	345.5	315.1	298.5	290.2
52.5°	627.3	569.3	486.4	417.3	373.1	339.9	284.7	237.7	204.5	185.2	174.1
55°	533.4	480.9	403.5	339.9	298.5	265.3	210.0	165.8	135.4	116.1	102.3
57.5°	439.4	392.4	328.9	268.1	232.1	201.7	154.8	116.1	91.2	74.6	63.6
60°	337.2	301.2	248.7	201.7	171.3	146.5	110.5	80.1	63.6	49.7	44.2
62.5°	237.7	215.6	176.9	143.7	124.4	105.0	77.4	58.0	44.2	35.9	33.2
65°	160.3	143.7	121.6	96.7	82.9	71.9	55.3	41.5	33.2	27.6	24.9
67.5°	105.0	96.7	80.1	66.3	58.0	49.7	38.7	30.4	24.9	22.1	19.3
70°	69.1	63.6	52.5	44.2	41.5	35.9	27.6	22.1	19.3	16.6	16.6
72.5°	44.2	38.7	35.9	30.4	27.6	24.9	19.3	16.6	13.8	13.8	13.8
75°	27.6	24.9	22.1	19.3	19.3	16.6	13.8	13.8	11.1	11.1	11.1
77.5°	16.6	16.6	13.8	13.8	11.1	11.1	11.1	8.3	8.3	8.3	8.3
80°	11.1	11.1	8.3	8.3	8.3	8.3	5.5	5.5	5.5	5.5	5.5
82.5°	5.5	5.5	5.5	5.5	5.5	5.5	2.8	2.8	2.8	2.8	2.8
85°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2108.6	2114.2	2108.6	2125.2	2097.6	2128.0	2116.9	2122.5	2144.6	2136.3	2144.6
5°	2150.1	2161.2	2161.2	2180.5	2155.6	2191.6	2180.5	2191.6	2213.7	2213.7	2224.7
7.5°	2202.6	2216.4	2222.0	2241.3	2216.4	2260.6	2249.6	2263.4	2291.0	2291.0	2299.3
10°	2257.9	2274.5	2285.5	2307.6	2280.0	2329.7	2318.7	2338.0	2362.9	2365.7	2379.5
12.5°	2327.0	2349.1	2362.9	2382.2	2362.9	2412.6	2401.6	2420.9	2454.1	2456.9	2473.4
15°	2404.4	2432.0	2448.6	2470.7	2448.6	2503.8	2492.8	2514.9	2539.8	2550.8	2567.4
17.5°	2454.1	2487.3	2501.1	2526.0	2503.8	2559.1	2545.3	2575.7	2597.8	2603.3	2622.7
20°	2462.4	2492.8	2512.1	2531.5	2512.1	2567.4	2553.6	2578.5	2606.1	2611.6	2625.4
22.5°	2426.5	2451.3	2473.4	2490.0	2473.4	2528.7	2509.4	2537.0	2561.9	2567.4	2578.5
25°	2343.6	2374.0	2396.1	2409.9	2393.3	2445.8	2429.2	2454.1	2476.2	2487.3	2490.0
27.5°	2227.5	2255.1	2277.2	2285.5	2274.5	2324.2	2302.1	2332.5	2351.8	2357.4	2365.7
30°	2070.0	2094.8	2116.9	2122.5	2114.2	2150.1	2139.0	2166.7	2186.0	2191.6	2197.1
32.5°	1876.5	1901.4	1915.2	1920.7	1912.4	1948.4	1937.3	1959.4	1981.5	1981.5	1981.5
35°	1658.2	1680.3	1688.6	1705.2	1685.8	1721.7	1710.7	1730.0	1749.4	1749.4	1752.1
37.5°	1423.3	1439.8	1445.4	1462.0	1442.6	1475.8	1467.5	1484.1	1500.6	1497.9	1503.4
40°	1171.8	1188.4	1193.9	1207.7	1191.1	1218.8	1213.2	1229.8	1243.6	1243.6	1243.6
42.5°	928.6	939.6	939.6	953.5	936.9	961.7	961.7	972.8	986.6	983.9	983.9
45°	674.3	671.6	677.1	674.3	674.3	696.4	696.4	702.0	713.0	707.5	710.3
47.5°	447.7	450.5	439.4	447.7	436.7	456.0	456.0	456.0	464.3	458.8	464.3
50°	284.7	276.4	270.8	270.8	268.1	281.9	276.4	279.1	284.7	279.1	284.7
52.5°	160.3	157.5	152.0	154.8	149.2	152.0	152.0	152.0	154.8	152.0	157.5
55°	94.0	85.7	82.9	82.9	80.1	82.9	80.1	80.1	80.1	77.4	80.1
57.5°	55.3	52.5	49.7	49.7	47.0	47.0	47.0	47.0	47.0	47.0	47.0
60°	38.7	35.9	35.9	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
62.5°	30.4	27.6	27.6	27.6	24.9	24.9	24.9	24.9	24.9	27.6	24.9
65°	22.1	22.1	22.1	22.1	22.1	22.1	19.3	22.1	22.1	22.1	22.1
67.5°	19.3	19.3	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
70°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
72.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
75°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
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	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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°	0.0	2.8	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: P212747

CATALOG NUMBER: LD4B40D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2152.9	2141.8	2116.9	2133.5	2136.3	2125.2	2139.0	2155.6	2139.0	2125.2	2136.3
5°	2233.0	2224.7	2202.6	2216.4	2219.2	2216.4	2224.7	2238.5	2224.7	2216.4	2219.2
7.5°	2313.2	2307.6	2282.8	2299.3	2304.9	2299.3	2307.6	2321.4	2307.6	2299.3	2304.9
10°	2390.5	2387.8	2362.9	2385.0	2387.8	2382.2	2390.5	2412.6	2390.5	2382.2	2387.8
12.5°	2479.0	2484.5	2456.9	2481.7	2484.5	2479.0	2490.0	2506.6	2490.0	2479.0	2484.5
15°	2581.2	2578.5	2556.4	2575.7	2581.2	2575.7	2589.5	2611.6	2589.5	2575.7	2581.2
17.5°	2631.0	2631.0	2614.4	2633.7	2636.5	2636.5	2647.6	2664.1	2647.6	2636.5	2636.5
20°	2633.7	2636.5	2617.2	2639.3	2639.3	2639.3	2650.3	2658.6	2650.3	2639.3	2639.3
22.5°	2589.5	2592.3	2572.9	2592.3	2592.3	2595.0	2600.6	2606.1	2600.6	2595.0	2592.3
25°	2503.8	2506.6	2490.0	2506.6	2503.8	2503.8	2509.4	2517.7	2509.4	2503.8	2503.8
27.5°	2376.7	2379.5	2357.4	2376.7	2374.0	2371.2	2379.5	2382.2	2379.5	2371.2	2374.0
30°	2208.1	2210.9	2191.6	2208.1	2205.4	2202.6	2213.7	2216.4	2213.7	2202.6	2205.4
32.5°	2006.4	2000.9	1987.0	2000.9	1998.1	1998.1	2003.6	2011.9	2003.6	1998.1	1998.1
35°	1763.2	1763.2	1754.9	1766.0	1757.7	1768.7	1768.7	1771.5	1768.7	1768.7	1757.7
37.5°	1514.5	1514.5	1508.9	1514.5	1511.7	1522.8	1522.8	1531.0	1522.8	1522.8	1511.7
40°	1254.7	1254.7	1249.2	1254.7	1263.0	1263.0	1260.2	1271.3	1260.2	1263.0	1263.0
42.5°	992.1	992.1	989.4	1003.2	1003.2	1003.2	994.9	1006.0	994.9	1003.2	1003.2
45°	721.3	715.8	713.0	713.0	715.8	726.8	715.8	729.6	715.8	726.8	715.8
47.5°	458.8	461.5	464.3	472.6	467.1	464.3	464.3	472.6	464.3	464.3	467.1
50°	281.9	284.7	284.7	290.2	281.9	287.4	284.7	290.2	284.7	287.4	281.9
52.5°	154.8	154.8	154.8	160.3	154.8	157.5	154.8	160.3	154.8	157.5	154.8
55°	80.1	80.1	80.1	82.9	80.1	80.1	80.1	82.9	80.1	80.1	80.1
57.5°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
60°	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
62.5°	27.6	24.9	24.9	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
65°	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
67.5°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
70°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
72.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
75°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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°	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):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2133.5	2116.9	2141.8	2152.9	2144.6	2136.3	2144.6	2122.5	2116.9	2128.0	2097.6
5°	2216.4	2202.6	2224.7	2233.0	2224.7	2213.7	2213.7	2191.6	2180.5	2191.6	2155.6
7.5°	2299.3	2282.8	2307.6	2313.2	2299.3	2291.0	2291.0	2263.4	2249.6	2260.6	2216.4
10°	2385.0	2362.9	2387.8	2390.5	2379.5	2365.7	2362.9	2338.0	2318.7	2329.7	2280.0
12.5°	2481.7	2456.9	2484.5	2479.0	2473.4	2456.9	2454.1	2420.9	2401.6	2412.6	2362.9
15°	2575.7	2556.4	2578.5	2581.2	2567.4	2550.8	2539.8	2514.9	2492.8	2503.8	2448.6
17.5°	2633.7	2614.4	2631.0	2631.0	2622.7	2603.3	2597.8	2575.7	2545.3	2559.1	2503.8
20°	2639.3	2617.2	2636.5	2633.7	2625.4	2611.6	2606.1	2578.5	2553.6	2567.4	2512.1
22.5°	2592.3	2572.9	2592.3	2589.5	2578.5	2567.4	2561.9	2537.0	2509.4	2528.7	2473.4
25°	2506.6	2490.0	2506.6	2503.8	2490.0	2487.3	2476.2	2454.1	2429.2	2445.8	2393.3
27.5°	2376.7	2357.4	2379.5	2376.7	2365.7	2357.4	2351.8	2332.5	2302.1	2324.2	2274.5
30°	2208.1	2191.6	2210.9	2208.1	2197.1	2191.6	2186.0	2166.7	2139.0	2150.1	2114.2
32.5°	2000.9	1987.0	2000.9	2006.4	1981.5	1981.5	1981.5	1959.4	1937.3	1948.4	1912.4
35°	1766.0	1754.9	1763.2	1763.2	1752.1	1749.4	1749.4	1730.0	1710.7	1721.7	1685.8
37.5°	1514.5	1508.9	1514.5	1514.5	1503.4	1497.9	1500.6	1484.1	1467.5	1475.8	1442.6
40°	1254.7	1249.2	1254.7	1254.7	1243.6	1243.6	1243.6	1229.8	1213.2	1218.8	1191.1
42.5°	1003.2	989.4	992.1	992.1	983.9	983.9	986.6	972.8	961.7	961.7	936.9
45°	713.0	713.0	715.8	721.3	710.3	707.5	713.0	702.0	696.4	696.4	674.3
47.5°	472.6	464.3	461.5	458.8	464.3	458.8	464.3	456.0	456.0	456.0	436.7
50°	290.2	284.7	284.7	281.9	284.7	279.1	284.7	279.1	276.4	281.9	268.1
52.5°	160.3	154.8	154.8	154.8	157.5	152.0	154.8	152.0	152.0	152.0	149.2
55°	82.9	80.1	80.1	80.1	80.1	77.4	80.1	80.1	80.1	82.9	80.1
57.5°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
60°	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
62.5°	27.6	24.9	24.9	27.6	24.9	27.6	24.9	24.9	24.9	24.9	24.9
65°	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	19.3	22.1	22.1
67.5°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
70°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
72.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
75°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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°	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°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2125.2	2108.6	2114.2	2108.6	2094.8	2097.6	2089.3	2089.3	2072.7	2070.0	2072.7
5°	2180.5	2161.2	2161.2	2150.1	2130.8	2128.0	2111.4	2111.4	2086.5	2078.2	2078.2
7.5°	2241.3	2222.0	2216.4	2202.6	2177.7	2166.7	2144.6	2136.3	2105.9	2092.1	2089.3
10°	2307.6	2285.5	2274.5	2257.9	2227.5	2208.1	2177.7	2166.7	2130.8	2103.1	2100.4
12.5°	2382.2	2362.9	2349.1	2327.0	2293.8	2266.2	2230.2	2210.9	2163.9	2133.5	2119.7
15°	2470.7	2448.6	2432.0	2404.4	2368.4	2335.3	2288.3	2266.2	2210.9	2169.4	2150.1
17.5°	2526.0	2501.1	2487.3	2454.1	2418.2	2379.5	2327.0	2299.3	2235.8	2183.3	2163.9
20°	2531.5	2512.1	2492.8	2462.4	2426.5	2382.2	2327.0	2299.3	2233.0	2180.5	2152.9
22.5°	2490.0	2473.4	2451.3	2426.5	2387.8	2343.6	2291.0	2266.2	2202.6	2147.3	2116.9
25°	2409.9	2396.1	2374.0	2343.6	2315.9	2268.9	2219.2	2202.6	2136.3	2089.3	2061.7
27.5°	2285.5	2277.2	2255.1	2227.5	2205.4	2166.7	2116.9	2103.1	2045.1	2003.6	1981.5
30°	2122.5	2116.9	2094.8	2070.0	2053.4	2017.4	1973.2	1967.7	1915.2	1884.8	1862.7
32.5°	1920.7	1915.2	1901.4	1876.5	1862.7	1832.3	1790.8	1796.4	1752.1	1727.3	1719.0
35°	1705.2	1688.6	1680.3	1658.2	1641.6	1619.5	1583.6	1591.8	1567.0	1547.6	1544.9
37.5°	1462.0	1445.4	1439.8	1423.3	1409.4	1390.1	1362.5	1373.5	1362.5	1354.2	1362.5
40°	1207.7	1193.9	1188.4	1171.8	1166.2	1152.4	1133.1	1160.7	1146.9	1163.5	1166.2
42.5°	953.5	939.6	939.6	928.6	920.3	917.5	903.7	939.6	939.6	967.3	981.1
45°	674.3	677.1	671.6	674.3	668.8	677.1	668.8	693.7	729.6	765.5	787.6
47.5°	447.7	439.4	450.5	447.7	444.9	456.0	467.1	491.9	533.4	583.1	613.5
50°	270.8	270.8	276.4	284.7	290.2	298.5	315.1	345.5	392.4	442.2	478.1
52.5°	154.8	152.0	157.5	160.3	174.1	185.2	204.5	237.7	284.7	339.9	373.1
55°	82.9	82.9	85.7	94.0	102.3	116.1	135.4	165.8	210.0	265.3	298.5
57.5°	49.7	49.7	52.5	55.3	63.6	74.6	91.2	116.1	154.8	201.7	232.1
60°	33.2	35.9	35.9	38.7	44.2	49.7	63.6	80.1	110.5	146.5	171.3
62.5°	27.6	27.6	27.6	30.4	33.2	35.9	44.2	58.0	77.4	105.0	124.4
65°	22.1	22.1	22.1	22.1	24.9	27.6	33.2	41.5	55.3	71.9	82.9
67.5°	16.6	16.6	19.3	19.3	19.3	22.1	24.9	30.4	38.7	49.7	58.0
70°	13.8	13.8	13.8	13.8	16.6	16.6	19.3	22.1	27.6	35.9	41.5
72.5°	11.1	11.1	11.1	11.1	13.8	13.8	13.8	16.6	19.3	24.9	27.6
75°	8.3	8.3	8.3	8.3	11.1	11.1	11.1	13.8	13.8	16.6	19.3
77.5°	5.5	5.5	5.5	5.5	8.3	8.3	8.3	8.3	11.1	11.1	11.1
80°	2.8	2.8	2.8	5.5	5.5	5.5	5.5	5.5	5.5	8.3	8.3
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	5.5	5.5
85°	0.0	0.0	2.8	0.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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: P212747

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1	2092.1
2.5°	2053.4	2089.3	2047.8	2056.1	2042.3	2067.2	2034.0	2042.3	2047.8	2042.3	2045.1
5°	2056.1	2083.8	2036.8	2045.1	2023.0	2039.6	2009.2	2011.9	2011.9	2006.4	2003.6
7.5°	2064.4	2081.0	2031.3	2028.5	2000.9	2017.4	1981.5	1976.0	1973.2	1964.9	1967.7
10°	2067.2	2072.7	2020.2	2009.2	1976.0	1981.5	1945.6	1934.5	1926.2	1920.7	1918.0
12.5°	2086.5	2081.0	2020.2	2000.9	1959.4	1956.6	1918.0	1901.4	1887.6	1882.0	1879.3
15°	2111.4	2092.1	2025.7	1998.1	1951.1	1940.1	1898.6	1882.0	1862.7	1857.2	1851.6
17.5°	2122.5	2092.1	2020.2	1984.3	1931.8	1918.0	1876.5	1854.4	1835.0	1826.8	1821.2
20°	2108.6	2070.0	1998.1	1959.4	1904.1	1884.8	1843.3	1818.5	1799.1	1790.8	1785.3
22.5°	2078.2	2034.0	1964.9	1926.2	1871.0	1846.1	1810.2	1788.1	1766.0	1763.2	1754.9
25°	2025.7	1981.5	1923.5	1884.8	1835.0	1810.2	1777.0	1757.7	1735.6	1732.8	1730.0
27.5°	1948.4	1906.9	1862.7	1826.8	1782.5	1763.2	1738.3	1719.0	1699.6	1699.6	1694.1
30°	1837.8	1810.2	1771.5	1749.4	1713.4	1694.1	1677.5	1663.7	1644.4	1647.1	1641.6
32.5°	1696.9	1683.0	1655.4	1644.4	1616.7	1611.2	1594.6	1583.6	1567.0	1572.5	1567.0
35°	1539.3	1522.8	1522.8	1517.2	1503.4	1500.6	1492.4	1486.8	1475.8	1478.5	1478.5
37.5°	1359.7	1359.7	1376.3	1379.0	1376.3	1381.8	1379.0	1379.0	1368.0	1373.5	1370.8
40°	1174.5	1191.1	1221.5	1238.1	1243.6	1254.7	1268.5	1263.0	1257.4	1265.7	1263.0
42.5°	994.9	1028.1	1075.0	1102.7	1122.0	1138.6	1158.0	1158.0	1155.2	1166.2	1163.5
45°	823.6	854.0	917.5	964.5	997.7	1022.5	1044.6	1052.9	1055.7	1066.8	1064.0
47.5°	655.0	707.5	782.1	837.4	878.8	909.2	939.6	950.7	959.0	972.8	972.8
50°	519.6	585.9	671.6	726.8	776.6	809.7	840.1	856.7	867.8	878.8	878.8
52.5°	417.3	486.4	569.3	627.3	674.3	710.3	740.7	760.0	768.3	782.1	782.1
55°	339.9	403.5	480.9	533.4	580.4	613.5	638.4	655.0	663.3	674.3	674.3
57.5°	268.1	328.9	392.4	439.4	478.1	503.0	525.1	530.6	533.4	541.7	544.4
60°	201.7	248.7	301.2	337.2	364.8	381.4	398.0	395.2	392.4	398.0	392.4
62.5°	143.7	176.9	215.6	237.7	259.8	268.1	276.4	270.8	265.3	268.1	268.1
65°	96.7	121.6	143.7	160.3	171.3	176.9	179.6	176.9	174.1	176.9	174.1
67.5°	66.3	80.1	96.7	105.0	113.3	116.1	118.8	116.1	116.1	116.1	113.3
70°	44.2	52.5	63.6	69.1	71.9	74.6	77.4	74.6	74.6	74.6	74.6
72.5°	30.4	35.9	38.7	44.2	47.0	47.0	47.0	47.0	47.0	47.0	47.0
75°	19.3	22.1	24.9	27.6	30.4	30.4	30.4	30.4	30.4	30.4	30.4
77.5°	13.8	13.8	16.6	16.6	19.3	19.3	19.3	19.3	19.3	19.3	19.3
80°	8.3	8.3	11.1	11.1	11.1	11.1	13.8	11.1	13.8	13.8	13.8
82.5°	5.5	5.5	5.5	5.5	8.3	8.3	8.3	8.3	8.3	8.3	8.3
85°	2.8	2.8	2.8	2.8	2.8	2.8	5.5	2.8	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: P212747

CATALOG NUMBER: LD4B40D010 EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	2092.1	2092.1	2092.1	2092.1
2.5°	2045.1	2039.6	2023.0	2042.3
5°	2000.9	1995.3	1981.5	1995.3
7.5°	1956.6	1948.4	1937.3	1945.6
10°	1904.1	1898.6	1884.8	1893.1
12.5°	1865.4	1854.4	1846.1	1848.9
15°	1840.6	1829.5	1821.2	1824.0
17.5°	1807.4	1796.4	1788.1	1788.1
20°	1771.5	1760.4	1754.9	1752.1
22.5°	1741.1	1732.8	1730.0	1721.7
25°	1713.4	1707.9	1707.9	1696.9
27.5°	1683.0	1674.8	1674.8	1663.7
30°	1630.5	1627.8	1627.8	1619.5
32.5°	1561.4	1553.2	1558.7	1544.9
35°	1467.5	1462.0	1470.2	1459.2
37.5°	1365.2	1362.5	1368.0	1359.7
40°	1257.4	1257.4	1265.7	1251.9
42.5°	1163.5	1163.5	1171.8	1158.0
45°	1061.2	1069.5	1077.8	1066.8
47.5°	972.8	978.3	989.4	978.3
50°	884.4	889.9	898.2	887.1
52.5°	787.6	793.2	801.5	793.2
55°	677.1	682.6	690.9	685.4
57.5°	544.4	538.9	552.7	541.7
60°	395.2	384.1	386.9	386.9
62.5°	262.5	257.0	262.5	254.3
65°	174.1	171.3	171.3	171.3
67.5°	116.1	113.3	116.1	113.3
70°	74.6	74.6	74.6	74.6
72.5°	47.0	47.0	47.0	47.0
75°	30.4	30.4	30.4	30.4
77.5°	19.3	19.3	19.3	19.3
80°	13.8	13.8	13.8	13.8
82.5°	8.3	8.3	8.3	8.3
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)