

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: P212748

Luminaire Tested: **LD4B40D010 EU4B30508050 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212748
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 EU4B30508050 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3840.7 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

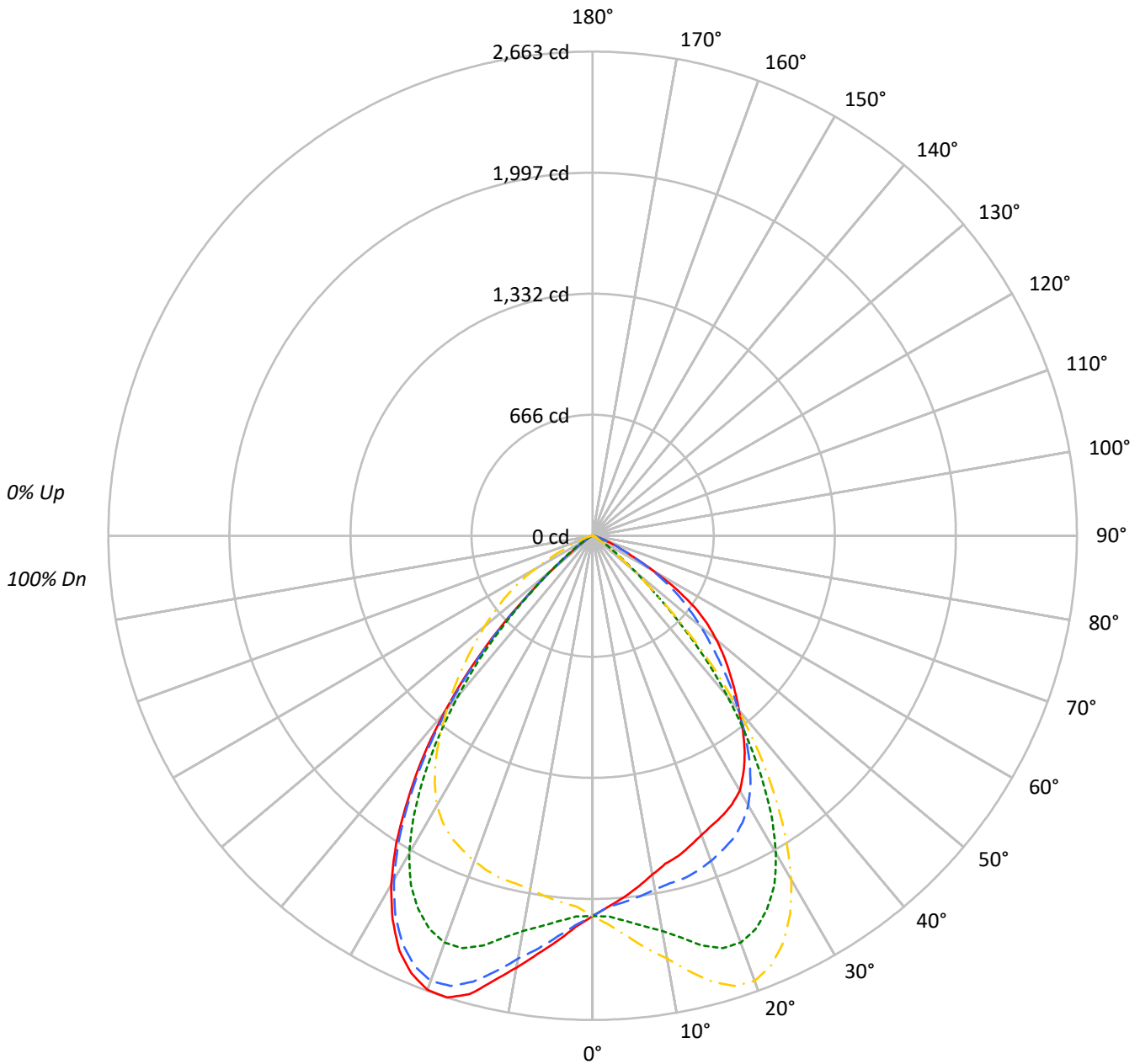
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	257903	257903	257903	257903
5°	246915	263334	277015	263334
10°	236970	276411	302012	276411
15°	232791	298032	333314	298032
20°	229865	312521	348775	312521
25°	230807	308627	342447	308627
30°	230533	287176	315505	287176
35°	219602	243724	266597	243724
40°	201464	185459	204587	185459
45°	185985	118042	127200	118042
50°	170131	57241	55649	57241
55°	147307	24945	17827	24945
60°	95396	12261	8165	12261
65°	49967	8055	6450	8055
70°	26904	5987	4977	5987
75°	14488	5242	3956	5242
80°	9802	3907	1989	3907
85°	7784	3963	0	3963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.8	5.3
10°-20°	637.7	16.6
20°-30°	991.4	25.8
30°-40°	1001.3	26.1
40°-50°	634.0	16.5
50°-60°	266.1	6.9
60°-70°	84.3	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°	1832.9	47.7
0°-40°	2834.2	73.8
0°-60°	3734.3	97.2
0°-90°	3840.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3840.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2091	2091	2091	2091	2091	
5°	1994	2127	2237	2127	1994	187
15°	1823	2334	2610	2334	1823	514
25°	1696	2268	2516	2268	1696	781
35°	1458	1619	1770	1619	1458	906
45°	1066	677	729	677	1066	823
55°	685	116	83	116	685	591
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°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2041.2	2021.8	2038.4	2043.9	2043.9	2041.2	2046.7	2041.2	2032.9	2066.0	2041.2
5°	1994.2	1980.4	1994.2	1999.7	2002.5	2005.3	2010.8	2010.8	2008.0	2038.4	2021.8
7.5°	1944.5	1936.2	1947.3	1955.5	1966.6	1963.8	1972.1	1974.9	1980.4	2016.3	1999.7
10°	1892.0	1883.7	1897.5	1903.1	1916.9	1919.6	1925.2	1933.4	1944.5	1980.4	1974.9
12.5°	1847.8	1845.1	1853.3	1864.4	1878.2	1881.0	1886.5	1900.3	1916.9	1955.5	1958.3
15°	1823.0	1820.2	1828.5	1839.5	1850.6	1856.1	1861.6	1881.0	1897.5	1939.0	1950.0
17.5°	1787.1	1787.1	1795.3	1806.4	1820.2	1825.7	1834.0	1853.3	1875.4	1916.9	1930.7
20°	1751.2	1753.9	1759.4	1770.5	1784.3	1789.8	1798.1	1817.4	1842.3	1883.7	1903.1
22.5°	1720.8	1729.1	1731.8	1740.1	1753.9	1762.2	1765.0	1787.1	1809.2	1845.1	1869.9
25°	1695.9	1707.0	1707.0	1712.5	1729.1	1731.8	1734.6	1756.7	1776.0	1809.2	1834.0
27.5°	1662.8	1673.8	1673.8	1682.1	1693.1	1698.7	1698.7	1718.0	1737.3	1762.2	1781.5
30°	1618.6	1626.9	1626.9	1629.6	1640.7	1646.2	1643.4	1662.8	1676.6	1693.1	1712.5
32.5°	1544.0	1557.8	1552.3	1560.6	1566.1	1571.6	1566.1	1582.7	1593.7	1610.3	1615.8
35°	1458.4	1469.4	1461.1	1466.7	1477.7	1477.7	1474.9	1486.0	1491.5	1499.8	1502.6
37.5°	1358.9	1367.2	1361.7	1364.5	1370.0	1372.7	1367.2	1378.3	1378.3	1381.0	1375.5
40°	1251.2	1265.0	1256.7	1256.7	1262.3	1265.0	1256.7	1262.3	1267.8	1254.0	1242.9
42.5°	1157.3	1171.1	1162.8	1162.8	1162.8	1165.6	1154.5	1157.3	1157.3	1138.0	1121.4
45°	1066.2	1077.2	1068.9	1060.6	1063.4	1066.2	1055.1	1052.3	1044.1	1022.0	997.1
47.5°	977.8	988.8	977.8	972.2	972.2	972.2	958.4	950.2	939.1	908.7	878.3
50°	886.6	897.7	889.4	883.9	878.3	878.3	867.3	856.2	839.7	809.3	776.1
52.5°	792.7	801.0	792.7	787.2	781.7	781.7	767.9	759.6	740.2	709.9	673.9
55°	685.0	690.5	682.2	676.7	673.9	673.9	662.9	654.6	638.0	613.2	580.0
57.5°	541.4	552.4	538.6	544.1	544.1	541.4	533.1	530.3	524.8	502.7	477.8
60°	386.7	386.7	383.9	395.0	392.2	397.7	392.2	395.0	397.7	381.2	364.6
62.5°	254.1	262.4	256.9	262.4	267.9	267.9	265.2	270.7	276.2	267.9	259.6
65°	171.2	171.2	171.2	174.0	174.0	176.8	174.0	176.8	179.5	176.8	171.2
67.5°	113.2	116.0	113.2	116.0	113.2	116.0	116.0	116.0	118.8	116.0	113.2
70°	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	77.3	74.6	71.8
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	11.0	13.8	11.0	11.0
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°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2055.0	2046.7	2088.1	2052.2	2071.6	2068.8	2071.6	2088.1	2088.1	2096.4	2093.6
5°	2043.9	2035.6	2082.6	2055.0	2077.1	2077.1	2085.4	2110.2	2110.2	2126.8	2129.6
7.5°	2027.4	2030.1	2079.8	2063.3	2088.1	2090.9	2104.7	2135.1	2143.4	2165.5	2176.5
10°	2008.0	2019.1	2071.6	2066.0	2099.2	2101.9	2129.6	2165.5	2176.5	2206.9	2226.2
12.5°	1999.7	2019.1	2079.8	2085.4	2118.5	2132.3	2162.7	2209.7	2229.0	2264.9	2292.5
15°	1997.0	2024.6	2090.9	2110.2	2148.9	2168.2	2209.7	2264.9	2287.0	2333.9	2367.1
17.5°	1983.2	2019.1	2090.9	2121.3	2162.7	2182.0	2234.5	2298.0	2325.7	2378.1	2416.8
20°	1958.3	1997.0	2068.8	2107.5	2151.7	2179.3	2231.8	2298.0	2325.7	2380.9	2425.1
22.5°	1925.2	1963.8	2032.9	2077.1	2115.7	2146.1	2201.4	2264.9	2289.8	2342.2	2386.4
25°	1883.7	1922.4	1980.4	2024.6	2060.5	2088.1	2135.1	2201.4	2217.9	2267.7	2314.6
27.5°	1825.7	1861.6	1905.8	1947.3	1980.4	2002.5	2043.9	2101.9	2115.7	2165.5	2204.1
30°	1748.4	1770.5	1809.2	1836.8	1861.6	1883.7	1914.1	1966.6	1972.1	2016.3	2052.2
32.5°	1643.4	1654.5	1682.1	1695.9	1718.0	1726.3	1751.2	1795.3	1789.8	1831.3	1861.6
35°	1516.4	1521.9	1521.9	1538.5	1544.0	1546.8	1566.1	1591.0	1582.7	1618.6	1640.7
37.5°	1378.3	1375.5	1358.9	1358.9	1361.7	1353.4	1361.7	1372.7	1361.7	1389.3	1408.7
40°	1237.4	1220.8	1190.5	1173.9	1165.6	1162.8	1146.3	1160.1	1132.4	1151.8	1165.6
42.5°	1102.1	1074.4	1027.5	994.3	980.5	966.7	939.1	939.1	903.2	917.0	919.8
45°	964.0	917.0	853.5	823.1	787.2	765.1	729.2	693.3	668.4	676.7	668.4
47.5°	836.9	781.7	707.1	654.6	613.2	582.8	533.1	491.6	466.8	455.7	444.7
50°	726.4	671.2	585.6	519.3	477.8	441.9	392.2	345.3	314.9	298.3	290.0
52.5°	627.0	569.0	486.1	417.1	372.9	339.7	284.5	237.5	204.4	185.1	174.0
55°	533.1	480.6	403.3	339.7	298.3	265.2	209.9	165.7	135.3	116.0	102.2
57.5°	439.2	392.2	328.7	267.9	232.0	201.6	154.7	116.0	91.1	74.6	63.5
60°	337.0	301.1	248.6	201.6	171.2	146.4	110.5	80.1	63.5	49.7	44.2
62.5°	237.5	215.4	176.8	143.6	124.3	105.0	77.3	58.0	44.2	35.9	33.1
65°	160.2	143.6	121.5	96.7	82.9	71.8	55.2	41.4	33.1	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	63.5	52.5	44.2	41.4	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	11.0	11.0	11.0
77.5°	16.6	16.6	13.8	13.8	11.0	11.0	11.0	8.3	8.3	8.3	8.3
80°	11.0	11.0	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°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2107.5	2113.0	2107.5	2124.0	2096.4	2126.8	2115.7	2121.3	2143.4	2135.1	2143.4
5°	2148.9	2159.9	2159.9	2179.3	2154.4	2190.3	2179.3	2190.3	2212.4	2212.4	2223.5
7.5°	2201.4	2215.2	2220.7	2240.0	2215.2	2259.4	2248.3	2262.1	2289.8	2289.8	2298.0
10°	2256.6	2273.2	2284.2	2306.3	2278.7	2328.4	2317.4	2336.7	2361.6	2364.3	2378.1
12.5°	2325.7	2347.8	2361.6	2380.9	2361.6	2411.3	2400.2	2419.6	2452.7	2455.5	2472.1
15°	2403.0	2430.6	2447.2	2469.3	2447.2	2502.4	2491.4	2513.5	2538.3	2549.4	2566.0
17.5°	2452.7	2485.9	2499.7	2524.5	2502.4	2557.7	2543.9	2574.2	2596.3	2601.9	2621.2
20°	2461.0	2491.4	2510.7	2530.1	2510.7	2566.0	2552.2	2577.0	2604.6	2610.2	2624.0
22.5°	2425.1	2450.0	2472.1	2488.6	2472.1	2527.3	2508.0	2535.6	2560.4	2566.0	2577.0
25°	2342.2	2372.6	2394.7	2408.5	2392.0	2444.4	2427.9	2452.7	2474.8	2485.9	2488.6
27.5°	2226.2	2253.8	2275.9	2284.2	2273.2	2322.9	2300.8	2331.2	2350.5	2356.0	2364.3
30°	2068.8	2093.6	2115.7	2121.3	2113.0	2148.9	2137.8	2165.5	2184.8	2190.3	2195.8
32.5°	1875.4	1900.3	1914.1	1919.6	1911.4	1947.3	1936.2	1958.3	1980.4	1980.4	1980.4
35°	1657.2	1679.3	1687.6	1704.2	1684.9	1720.8	1709.7	1729.1	1748.4	1748.4	1751.2
37.5°	1422.5	1439.0	1444.6	1461.1	1441.8	1474.9	1466.7	1483.2	1499.8	1497.0	1502.6
40°	1171.1	1187.7	1193.2	1207.0	1190.5	1218.1	1212.5	1229.1	1242.9	1242.9	1242.9
42.5°	928.1	939.1	939.1	952.9	936.3	961.2	961.2	972.2	986.1	983.3	983.3
45°	673.9	671.2	676.7	673.9	673.9	696.0	696.0	701.6	712.6	707.1	709.9
47.5°	447.5	450.2	439.2	447.5	436.4	455.7	455.7	455.7	464.0	458.5	464.0
50°	284.5	276.2	270.7	270.7	267.9	281.7	276.2	279.0	284.5	279.0	284.5
52.5°	160.2	157.4	151.9	154.7	149.2	151.9	151.9	151.9	154.7	151.9	157.4
55°	93.9	85.6	82.9	82.9	80.1	82.9	80.1	80.1	80.1	77.3	80.1
57.5°	55.2	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	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
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°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
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: P212748

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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2151.7	2140.6	2115.7	2132.3	2135.1	2124.0	2137.8	2154.4	2137.8	2124.0	2135.1
5°	2231.8	2223.5	2201.4	2215.2	2217.9	2215.2	2223.5	2237.3	2223.5	2215.2	2217.9
7.5°	2311.9	2306.3	2281.5	2298.0	2303.6	2298.0	2306.3	2320.1	2306.3	2298.0	2303.6
10°	2389.2	2386.4	2361.6	2383.7	2386.4	2380.9	2389.2	2411.3	2389.2	2380.9	2386.4
12.5°	2477.6	2483.1	2455.5	2480.3	2483.1	2477.6	2488.6	2505.2	2488.6	2477.6	2483.1
15°	2579.8	2577.0	2554.9	2574.2	2579.8	2574.2	2588.1	2610.2	2588.1	2574.2	2579.8
17.5°	2629.5	2629.5	2612.9	2632.3	2635.0	2635.0	2646.1	2662.6	2646.1	2635.0	2635.0
20°	2632.3	2635.0	2615.7	2637.8	2637.8	2637.8	2648.8	2657.1	2648.8	2637.8	2637.8
22.5°	2588.1	2590.8	2571.5	2590.8	2590.8	2593.6	2599.1	2604.6	2599.1	2593.6	2590.8
25°	2502.4	2505.2	2488.6	2505.2	2502.4	2502.4	2508.0	2516.2	2508.0	2502.4	2502.4
27.5°	2375.4	2378.1	2356.0	2375.4	2372.6	2369.9	2378.1	2380.9	2378.1	2369.9	2372.6
30°	2206.9	2209.7	2190.3	2206.9	2204.1	2201.4	2212.4	2215.2	2212.4	2201.4	2204.1
32.5°	2005.3	1999.7	1985.9	1999.7	1997.0	1997.0	2002.5	2010.8	2002.5	1997.0	1997.0
35°	1762.2	1762.2	1753.9	1765.0	1756.7	1767.7	1767.7	1770.5	1767.7	1767.7	1756.7
37.5°	1513.6	1513.6	1508.1	1513.6	1510.9	1521.9	1521.9	1530.2	1521.9	1521.9	1510.9
40°	1254.0	1254.0	1248.5	1254.0	1262.3	1262.3	1259.5	1270.6	1259.5	1262.3	1262.3
42.5°	991.6	991.6	988.8	1002.6	1002.6	1002.6	994.3	1005.4	994.3	1002.6	1002.6
45°	720.9	715.4	712.6	712.6	715.4	726.4	715.4	729.2	715.4	726.4	715.4
47.5°	458.5	461.3	464.0	472.3	466.8	464.0	464.0	472.3	464.0	464.0	466.8
50°	281.7	284.5	284.5	290.0	281.7	287.3	284.5	290.0	284.5	287.3	281.7
52.5°	154.7	154.7	154.7	160.2	154.7	157.4	154.7	160.2	154.7	157.4	154.7
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°	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
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°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
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°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2132.3	2115.7	2140.6	2151.7	2143.4	2135.1	2143.4	2121.3	2115.7	2126.8	2096.4
5°	2215.2	2201.4	2223.5	2231.8	2223.5	2212.4	2212.4	2190.3	2179.3	2190.3	2154.4
7.5°	2298.0	2281.5	2306.3	2311.9	2298.0	2289.8	2289.8	2262.1	2248.3	2259.4	2215.2
10°	2383.7	2361.6	2386.4	2389.2	2378.1	2364.3	2361.6	2336.7	2317.4	2328.4	2278.7
12.5°	2480.3	2455.5	2483.1	2477.6	2472.1	2455.5	2452.7	2419.6	2400.2	2411.3	2361.6
15°	2574.2	2554.9	2577.0	2579.8	2566.0	2549.4	2538.3	2513.5	2491.4	2502.4	2447.2
17.5°	2632.3	2612.9	2629.5	2629.5	2621.2	2601.9	2596.3	2574.2	2543.9	2557.7	2502.4
20°	2637.8	2615.7	2635.0	2632.3	2624.0	2610.2	2604.6	2577.0	2552.2	2566.0	2510.7
22.5°	2590.8	2571.5	2590.8	2588.1	2577.0	2566.0	2560.4	2535.6	2508.0	2527.3	2472.1
25°	2505.2	2488.6	2505.2	2502.4	2488.6	2485.9	2474.8	2452.7	2427.9	2444.4	2392.0
27.5°	2375.4	2356.0	2378.1	2375.4	2364.3	2356.0	2350.5	2331.2	2300.8	2322.9	2273.2
30°	2206.9	2190.3	2209.7	2206.9	2195.8	2190.3	2184.8	2165.5	2137.8	2148.9	2113.0
32.5°	1999.7	1985.9	1999.7	2005.3	1980.4	1980.4	1980.4	1958.3	1936.2	1947.3	1911.4
35°	1765.0	1753.9	1762.2	1762.2	1751.2	1748.4	1748.4	1729.1	1709.7	1720.8	1684.9
37.5°	1513.6	1508.1	1513.6	1513.6	1502.6	1497.0	1499.8	1483.2	1466.7	1474.9	1441.8
40°	1254.0	1248.5	1254.0	1254.0	1242.9	1242.9	1242.9	1229.1	1212.5	1218.1	1190.5
42.5°	1002.6	988.8	991.6	991.6	983.3	983.3	986.1	972.2	961.2	961.2	936.3
45°	712.6	712.6	715.4	720.9	709.9	707.1	712.6	701.6	696.0	696.0	673.9
47.5°	472.3	464.0	461.3	458.5	464.0	458.5	464.0	455.7	455.7	455.7	436.4
50°	290.0	284.5	284.5	281.7	284.5	279.0	284.5	279.0	276.2	281.7	267.9
52.5°	160.2	154.7	154.7	154.7	157.4	151.9	154.7	151.9	151.9	151.9	149.2
55°	82.9	80.1	80.1	80.1	80.1	77.3	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°	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
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°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
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°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2124.0	2107.5	2113.0	2107.5	2093.6	2096.4	2088.1	2088.1	2071.6	2068.8	2071.6
5°	2179.3	2159.9	2159.9	2148.9	2129.6	2126.8	2110.2	2110.2	2085.4	2077.1	2077.1
7.5°	2240.0	2220.7	2215.2	2201.4	2176.5	2165.5	2143.4	2135.1	2104.7	2090.9	2088.1
10°	2306.3	2284.2	2273.2	2256.6	2226.2	2206.9	2176.5	2165.5	2129.6	2101.9	2099.2
12.5°	2380.9	2361.6	2347.8	2325.7	2292.5	2264.9	2229.0	2209.7	2162.7	2132.3	2118.5
15°	2469.3	2447.2	2430.6	2403.0	2367.1	2333.9	2287.0	2264.9	2209.7	2168.2	2148.9
17.5°	2524.5	2499.7	2485.9	2452.7	2416.8	2378.1	2325.7	2298.0	2234.5	2182.0	2162.7
20°	2530.1	2510.7	2491.4	2461.0	2425.1	2380.9	2325.7	2298.0	2231.8	2179.3	2151.7
22.5°	2488.6	2472.1	2450.0	2425.1	2386.4	2342.2	2289.8	2264.9	2201.4	2146.1	2115.7
25°	2408.5	2394.7	2372.6	2342.2	2314.6	2267.7	2217.9	2201.4	2135.1	2088.1	2060.5
27.5°	2284.2	2275.9	2253.8	2226.2	2204.1	2165.5	2115.7	2101.9	2043.9	2002.5	1980.4
30°	2121.3	2115.7	2093.6	2068.8	2052.2	2016.3	1972.1	1966.6	1914.1	1883.7	1861.6
32.5°	1919.6	1914.1	1900.3	1875.4	1861.6	1831.3	1789.8	1795.3	1751.2	1726.3	1718.0
35°	1704.2	1687.6	1679.3	1657.2	1640.7	1618.6	1582.7	1591.0	1566.1	1546.8	1544.0
37.5°	1461.1	1444.6	1439.0	1422.5	1408.7	1389.3	1361.7	1372.7	1361.7	1353.4	1361.7
40°	1207.0	1193.2	1187.7	1171.1	1165.6	1151.8	1132.4	1160.1	1146.3	1162.8	1165.6
42.5°	952.9	939.1	939.1	928.1	919.8	917.0	903.2	939.1	939.1	966.7	980.5
45°	673.9	676.7	671.2	673.9	668.4	676.7	668.4	693.3	729.2	765.1	787.2
47.5°	447.5	439.2	450.2	447.5	444.7	455.7	466.8	491.6	533.1	582.8	613.2
50°	270.7	270.7	276.2	284.5	290.0	298.3	314.9	345.3	392.2	441.9	477.8
52.5°	154.7	151.9	157.4	160.2	174.0	185.1	204.4	237.5	284.5	339.7	372.9
55°	82.9	82.9	85.6	93.9	102.2	116.0	135.3	165.7	209.9	265.2	298.3
57.5°	49.7	49.7	52.5	55.2	63.5	74.6	91.1	116.0	154.7	201.6	232.0
60°	33.1	35.9	35.9	38.7	44.2	49.7	63.5	80.1	110.5	146.4	171.2
62.5°	27.6	27.6	27.6	30.4	33.1	35.9	44.2	58.0	77.3	105.0	124.3
65°	22.1	22.1	22.1	22.1	24.9	27.6	33.1	41.4	55.2	71.8	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	41.4
72.5°	11.0	11.0	11.0	11.0	13.8	13.8	13.8	16.6	19.3	24.9	27.6
75°	8.3	8.3	8.3	8.3	11.0	11.0	11.0	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	11.0	11.0	11.0
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: P212748

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9	2090.9
2.5°	2052.2	2088.1	2046.7	2055.0	2041.2	2066.0	2032.9	2041.2	2046.7	2041.2	2043.9
5°	2055.0	2082.6	2035.6	2043.9	2021.8	2038.4	2008.0	2010.8	2010.8	2005.3	2002.5
7.5°	2063.3	2079.8	2030.1	2027.4	1999.7	2016.3	1980.4	1974.9	1972.1	1963.8	1966.6
10°	2066.0	2071.6	2019.1	2008.0	1974.9	1980.4	1944.5	1933.4	1925.2	1919.6	1916.9
12.5°	2085.4	2079.8	2019.1	1999.7	1958.3	1955.5	1916.9	1900.3	1886.5	1881.0	1878.2
15°	2110.2	2090.9	2024.6	1997.0	1950.0	1939.0	1897.5	1881.0	1861.6	1856.1	1850.6
17.5°	2121.3	2090.9	2019.1	1983.2	1930.7	1916.9	1875.4	1853.3	1834.0	1825.7	1820.2
20°	2107.5	2068.8	1997.0	1958.3	1903.1	1883.7	1842.3	1817.4	1798.1	1789.8	1784.3
22.5°	2077.1	2032.9	1963.8	1925.2	1869.9	1845.1	1809.2	1787.1	1765.0	1762.2	1753.9
25°	2024.6	1980.4	1922.4	1883.7	1834.0	1809.2	1776.0	1756.7	1734.6	1731.8	1729.1
27.5°	1947.3	1905.8	1861.6	1825.7	1781.5	1762.2	1737.3	1718.0	1698.7	1698.7	1693.1
30°	1836.8	1809.2	1770.5	1748.4	1712.5	1693.1	1676.6	1662.8	1643.4	1646.2	1640.7
32.5°	1695.9	1682.1	1654.5	1643.4	1615.8	1610.3	1593.7	1582.7	1566.1	1571.6	1566.1
35°	1538.5	1521.9	1521.9	1516.4	1502.6	1499.8	1491.5	1486.0	1474.9	1477.7	1477.7
37.5°	1358.9	1358.9	1375.5	1378.3	1375.5	1381.0	1378.3	1378.3	1367.2	1372.7	1370.0
40°	1173.9	1190.5	1220.8	1237.4	1242.9	1254.0	1267.8	1262.3	1256.7	1265.0	1262.3
42.5°	994.3	1027.5	1074.4	1102.1	1121.4	1138.0	1157.3	1157.3	1154.5	1165.6	1162.8
45°	823.1	853.5	917.0	964.0	997.1	1022.0	1044.1	1052.3	1055.1	1066.2	1063.4
47.5°	654.6	707.1	781.7	836.9	878.3	908.7	939.1	950.2	958.4	972.2	972.2
50°	519.3	585.6	671.2	726.4	776.1	809.3	839.7	856.2	867.3	878.3	878.3
52.5°	417.1	486.1	569.0	627.0	673.9	709.9	740.2	759.6	767.9	781.7	781.7
55°	339.7	403.3	480.6	533.1	580.0	613.2	638.0	654.6	662.9	673.9	673.9
57.5°	267.9	328.7	392.2	439.2	477.8	502.7	524.8	530.3	533.1	541.4	544.1
60°	201.6	248.6	301.1	337.0	364.6	381.2	397.7	395.0	392.2	397.7	392.2
62.5°	143.6	176.8	215.4	237.5	259.6	267.9	276.2	270.7	265.2	267.9	267.9
65°	96.7	121.5	143.6	160.2	171.2	176.8	179.5	176.8	174.0	176.8	174.0
67.5°	66.3	80.1	96.7	105.0	113.2	116.0	118.8	116.0	116.0	116.0	113.2
70°	44.2	52.5	63.5	69.1	71.8	74.6	77.3	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	11.0	11.0	11.0	11.0	13.8	11.0	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: P212748

CATALOG NUMBER: LD4B40D010 EU4B30508050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	2090.9	2090.9	2090.9	2090.9
2.5°	2043.9	2038.4	2021.8	2041.2
5°	1999.7	1994.2	1980.4	1994.2
7.5°	1955.5	1947.3	1936.2	1944.5
10°	1903.1	1897.5	1883.7	1892.0
12.5°	1864.4	1853.3	1845.1	1847.8
15°	1839.5	1828.5	1820.2	1823.0
17.5°	1806.4	1795.3	1787.1	1787.1
20°	1770.5	1759.4	1753.9	1751.2
22.5°	1740.1	1731.8	1729.1	1720.8
25°	1712.5	1707.0	1707.0	1695.9
27.5°	1682.1	1673.8	1673.8	1662.8
30°	1629.6	1626.9	1626.9	1618.6
32.5°	1560.6	1552.3	1557.8	1544.0
35°	1466.7	1461.1	1469.4	1458.4
37.5°	1364.5	1361.7	1367.2	1358.9
40°	1256.7	1256.7	1265.0	1251.2
42.5°	1162.8	1162.8	1171.1	1157.3
45°	1060.6	1068.9	1077.2	1066.2
47.5°	972.2	977.8	988.8	977.8
50°	883.9	889.4	897.7	886.6
52.5°	787.2	792.7	801.0	792.7
55°	676.7	682.2	690.5	685.0
57.5°	544.1	538.6	552.4	541.4
60°	395.0	383.9	386.7	386.7
62.5°	262.4	256.9	262.4	254.1
65°	174.0	171.2	171.2	171.2
67.5°	116.0	113.2	116.0	113.2
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)