

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: P212769

Luminaire Tested: **LD4B50D010TE EU4B30509730 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212769
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: LD4B50D010TE EU4B30509730 4LBSWL1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3522.7 lumens
Efficiency: N/A
Efficacy: 59.9 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

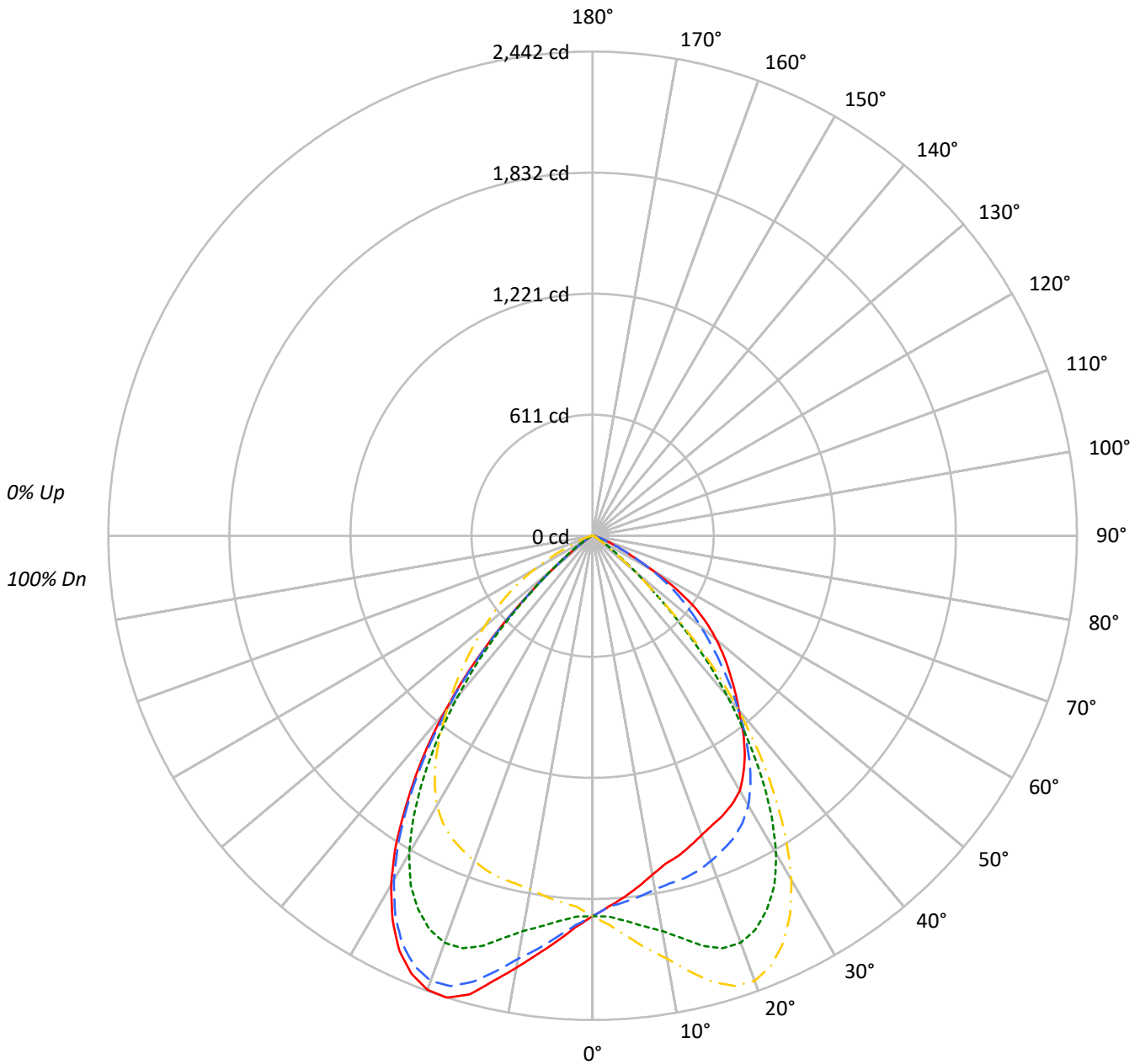
Input Watts (W): 58.77
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	236552	236552	236552	236552
5°	226473	241529	254072	241529
10°	217356	253528	276999	253528
15°	213509	273361	305706	273361
20°	210833	286649	319898	286649
25°	211699	283068	314098	283068
30°	211448	263405	289384	263405
35°	201412	223547	244522	223547
40°	184782	170098	187648	170098
45°	170582	108273	116664	108273
50°	156046	52502	51043	52502
55°	135114	22881	16344	22881
60°	87501	11249	7499	11249
65°	45851	7384	5925	7384
70°	24668	5482	4580	5482
75°	13296	4813	3622	4813
80°	9021	3623	1776	3623
85°	7218	3538	0	3538



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.0	5.3
10°-20°	584.9	16.6
20°-30°	909.3	25.8
30°-40°	918.4	26.1
40°-50°	581.5	16.5
50°-60°	244.1	6.9
60°-70°	77.4	2.2
70°-80°	17.7	0.5
80°-90°	2.5	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°	1681.1	47.7
0°-40°	2599.5	73.8
0°-60°	3425.1	97.2
0°-90°	3522.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3522.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1918	1918	1918	1918	1918	
5°	1829	1951	2052	1951	1829	172
15°	1672	2141	2394	2141	1672	471
25°	1556	2080	2308	2080	1556	716
35°	1338	1485	1624	1485	1338	831
45°	978	621	669	621	978	755
55°	628	106	76	106	628	542
65°	157	25	20	25	157	173
75°	28	10	8	10	28	34
85°	5	2	0	2	5	5
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°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1872.2	1854.4	1869.6	1874.7	1874.7	1872.2	1877.2	1872.2	1864.6	1895.0	1872.2
5°	1829.1	1816.4	1829.1	1834.2	1836.7	1839.2	1844.3	1844.3	1841.8	1869.6	1854.4
7.5°	1783.5	1775.9	1786.0	1793.6	1803.8	1801.2	1808.8	1811.4	1816.4	1849.4	1834.2
10°	1735.4	1727.8	1740.4	1745.5	1758.2	1760.7	1765.8	1773.4	1783.5	1816.4	1811.4
12.5°	1694.8	1692.3	1699.9	1710.0	1722.7	1725.2	1730.3	1743.0	1758.2	1793.6	1796.2
15°	1672.0	1669.5	1677.1	1687.2	1697.4	1702.4	1707.5	1725.2	1740.4	1778.4	1788.6
17.5°	1639.1	1639.1	1646.7	1656.8	1669.5	1674.6	1682.2	1699.9	1720.2	1758.2	1770.8
20°	1606.2	1608.7	1613.8	1623.9	1636.6	1641.6	1649.2	1667.0	1689.8	1727.8	1745.5
22.5°	1578.3	1585.9	1588.4	1596.0	1608.7	1616.3	1618.8	1639.1	1659.4	1692.3	1715.1
25°	1555.5	1565.6	1565.6	1570.7	1585.9	1588.4	1591.0	1611.2	1629.0	1659.4	1682.2
27.5°	1525.1	1535.2	1535.2	1542.8	1553.0	1558.0	1558.0	1575.8	1593.5	1616.3	1634.0
30°	1484.6	1492.2	1492.2	1494.7	1504.8	1509.9	1507.4	1525.1	1537.8	1553.0	1570.7
32.5°	1416.2	1428.8	1423.8	1431.4	1436.4	1441.5	1436.4	1451.6	1461.8	1477.0	1482.0
35°	1337.6	1347.8	1340.2	1345.2	1355.4	1355.4	1352.8	1363.0	1368.0	1375.6	1378.2
37.5°	1246.4	1254.0	1249.0	1251.5	1256.6	1259.1	1254.0	1264.2	1264.2	1266.7	1261.6
40°	1147.6	1160.3	1152.7	1152.7	1157.8	1160.3	1152.7	1157.8	1162.8	1150.2	1140.0
42.5°	1061.5	1074.2	1066.6	1066.6	1066.6	1069.1	1059.0	1061.5	1061.5	1043.8	1028.6
45°	977.9	988.0	980.4	972.8	975.4	977.9	967.8	965.2	957.6	937.4	914.6
47.5°	896.8	907.0	896.8	891.8	891.8	891.8	879.1	871.5	861.4	833.5	805.6
50°	813.2	823.3	815.7	810.7	805.6	805.6	795.5	785.3	770.1	742.3	711.9
52.5°	727.1	734.7	727.1	722.0	716.9	716.9	704.3	696.7	678.9	651.1	618.1
55°	628.3	633.3	625.7	620.7	618.1	618.1	608.0	600.4	585.2	562.4	532.0
57.5°	496.5	506.7	494.0	499.1	499.1	496.5	488.9	486.4	481.3	461.1	438.3
60°	354.7	354.7	352.1	362.3	359.7	364.8	359.7	362.3	364.8	349.6	334.4
62.5°	233.1	240.7	235.6	240.7	245.7	245.7	243.2	248.3	253.3	245.7	238.1
65°	157.1	157.1	157.1	159.6	159.6	162.1	159.6	162.1	164.7	162.1	157.1
67.5°	103.9	106.4	103.9	106.4	103.9	106.4	106.4	106.4	108.9	106.4	103.9
70°	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	70.9	68.4	65.9
72.5°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
75°	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
77.5°	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
80°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	10.1	12.7	10.1	10.1
82.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
85°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	2.5	5.1	2.5	2.5
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1884.8	1877.2	1915.2	1882.3	1900.0	1897.5	1900.0	1915.2	1915.2	1922.8	1920.3
5°	1874.7	1867.1	1910.2	1884.8	1905.1	1905.1	1912.7	1935.5	1935.5	1950.7	1953.2
7.5°	1859.5	1862.0	1907.6	1892.4	1915.2	1917.8	1930.4	1958.3	1965.9	1986.2	1996.3
10°	1841.8	1851.9	1900.0	1895.0	1925.4	1927.9	1953.2	1986.2	1996.3	2024.2	2041.9
12.5°	1834.2	1851.9	1907.6	1912.7	1943.1	1955.8	1983.6	2026.7	2044.4	2077.4	2102.7
15°	1831.6	1857.0	1917.8	1935.5	1971.0	1988.7	2026.7	2077.4	2097.6	2140.7	2171.1
17.5°	1819.0	1851.9	1917.8	1945.6	1983.6	2001.4	2049.5	2107.8	2133.1	2181.2	2216.7
20°	1796.2	1831.6	1897.5	1933.0	1973.5	1998.8	2047.0	2107.8	2133.1	2183.8	2224.3
22.5°	1765.8	1801.2	1864.6	1905.1	1940.6	1968.4	2019.1	2077.4	2100.2	2148.3	2188.8
25°	1727.8	1763.2	1816.4	1857.0	1889.9	1915.2	1958.3	2019.1	2034.3	2079.9	2123.0
27.5°	1674.6	1707.5	1748.0	1786.0	1816.4	1836.7	1874.7	1927.9	1940.6	1986.2	2021.6
30°	1603.6	1623.9	1659.4	1684.7	1707.5	1727.8	1755.6	1803.8	1808.8	1849.4	1882.3
32.5°	1507.4	1517.5	1542.8	1555.5	1575.8	1583.4	1606.2	1646.7	1641.6	1679.6	1707.5
35°	1390.8	1395.9	1395.9	1411.1	1416.2	1418.7	1436.4	1459.2	1451.6	1484.6	1504.8
37.5°	1264.2	1261.6	1246.4	1246.4	1249.0	1241.4	1249.0	1259.1	1249.0	1274.3	1292.0
40°	1135.0	1119.8	1091.9	1076.7	1069.1	1066.6	1051.4	1064.0	1038.7	1056.4	1069.1
42.5°	1010.8	985.5	942.4	912.0	899.4	886.7	861.4	861.4	828.4	841.1	843.6
45°	884.2	841.1	782.8	754.9	722.0	701.7	668.8	635.9	613.1	620.7	613.1
47.5°	767.6	716.9	648.5	600.4	562.4	534.5	488.9	450.9	428.1	418.0	407.9
50°	666.3	615.6	537.1	476.3	438.3	405.3	359.7	316.7	288.8	273.6	266.0
52.5°	575.1	521.9	445.9	382.5	342.0	311.6	260.9	217.9	187.5	169.7	159.6
55°	488.9	440.8	369.9	311.6	273.6	243.2	192.5	152.0	124.1	106.4	93.7
57.5°	402.8	359.7	301.5	245.7	212.8	184.9	141.9	106.4	83.6	68.4	58.3
60°	309.1	276.1	228.0	184.9	157.1	134.3	101.3	73.5	58.3	45.6	40.5
62.5°	217.9	197.6	162.1	131.7	114.0	96.3	70.9	53.2	40.5	32.9	30.4
65°	146.9	131.7	111.5	88.7	76.0	65.9	50.7	38.0	30.4	25.3	22.8
67.5°	96.3	88.7	73.5	60.8	53.2	45.6	35.5	27.9	22.8	20.3	17.7
70°	63.3	58.3	48.1	40.5	38.0	32.9	25.3	20.3	17.7	15.2	15.2
72.5°	40.5	35.5	32.9	27.9	25.3	22.8	17.7	15.2	12.7	12.7	12.7
75°	25.3	22.8	20.3	17.7	17.7	15.2	12.7	12.7	10.1	10.1	10.1
77.5°	15.2	15.2	12.7	12.7	10.1	10.1	10.1	7.6	7.6	7.6	7.6
80°	10.1	10.1	7.6	7.6	7.6	7.6	5.1	5.1	5.1	5.1	5.1
82.5°	5.1	5.1	5.1	5.1	5.1	5.1	2.5	2.5	2.5	2.5	2.5
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1933.0	1938.0	1933.0	1948.2	1922.8	1950.7	1940.6	1945.6	1965.9	1958.3	1965.9
5°	1971.0	1981.1	1981.1	1998.8	1976.0	2009.0	1998.8	2009.0	2029.2	2029.2	2039.4
7.5°	2019.1	2031.8	2036.8	2054.6	2031.8	2072.3	2062.2	2074.8	2100.2	2100.2	2107.8
10°	2069.8	2085.0	2095.1	2115.4	2090.0	2135.6	2125.5	2143.2	2166.0	2168.6	2181.2
12.5°	2133.1	2153.4	2166.0	2183.8	2166.0	2211.6	2201.5	2219.2	2249.6	2252.2	2267.4
15°	2204.0	2229.4	2244.6	2264.8	2244.6	2295.2	2285.1	2305.4	2328.2	2338.3	2353.5
17.5°	2249.6	2280.0	2292.7	2315.5	2295.2	2345.9	2333.2	2361.1	2381.4	2386.4	2404.2
20°	2257.2	2285.1	2302.8	2320.6	2302.8	2353.5	2340.8	2363.6	2389.0	2394.0	2406.7
22.5°	2224.3	2247.1	2267.4	2282.6	2267.4	2318.0	2300.3	2325.6	2348.4	2353.5	2363.6
25°	2148.3	2176.2	2196.4	2209.1	2193.9	2242.0	2226.8	2249.6	2269.9	2280.0	2282.6
27.5°	2041.9	2067.2	2087.5	2095.1	2085.0	2130.6	2110.3	2138.2	2155.9	2161.0	2168.6
30°	1897.5	1920.3	1940.6	1945.6	1938.0	1971.0	1960.8	1986.2	2003.9	2009.0	2014.0
32.5°	1720.2	1743.0	1755.6	1760.7	1753.1	1786.0	1775.9	1796.2	1816.4	1816.4	1816.4
35°	1520.0	1540.3	1547.9	1563.1	1545.4	1578.3	1568.2	1585.9	1603.6	1603.6	1606.2
37.5°	1304.7	1319.9	1325.0	1340.2	1322.4	1352.8	1345.2	1360.4	1375.6	1373.1	1378.2
40°	1074.2	1089.4	1094.4	1107.1	1091.9	1117.2	1112.2	1127.4	1140.0	1140.0	1140.0
42.5°	851.2	861.4	861.4	874.0	858.8	881.6	881.6	891.8	904.4	901.9	901.9
45°	618.1	615.6	620.7	618.1	618.1	638.4	638.4	643.5	653.6	648.5	651.1
47.5°	410.4	412.9	402.8	410.4	400.3	418.0	418.0	418.0	425.6	420.5	425.6
50°	260.9	253.3	248.3	248.3	245.7	258.4	253.3	255.9	260.9	255.9	260.9
52.5°	146.9	144.4	139.3	141.9	136.8	139.3	139.3	139.3	141.9	139.3	144.4
55°	86.1	78.5	76.0	76.0	73.5	76.0	73.5	73.5	73.5	70.9	73.5
57.5°	50.7	48.1	45.6	45.6	43.1	43.1	43.1	43.1	43.1	43.1	43.1
60°	35.5	32.9	32.9	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
62.5°	27.9	25.3	25.3	25.3	22.8	22.8	22.8	22.8	22.8	25.3	22.8
65°	20.3	20.3	20.3	20.3	20.3	20.3	17.7	20.3	20.3	20.3	20.3
67.5°	17.7	17.7	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
70°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
72.5°	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
75°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
77.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	5.1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
85°	0.0	2.5	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: P212769

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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1973.5	1963.4	1940.6	1955.8	1958.3	1948.2	1960.8	1976.0	1960.8	1948.2	1958.3
5°	2047.0	2039.4	2019.1	2031.8	2034.3	2031.8	2039.4	2052.0	2039.4	2031.8	2034.3
7.5°	2120.4	2115.4	2092.6	2107.8	2112.8	2107.8	2115.4	2128.0	2115.4	2107.8	2112.8
10°	2191.4	2188.8	2166.0	2186.3	2188.8	2183.8	2191.4	2211.6	2191.4	2183.8	2188.8
12.5°	2272.4	2277.5	2252.2	2275.0	2277.5	2272.4	2282.6	2297.8	2282.6	2272.4	2277.5
15°	2366.2	2363.6	2343.4	2361.1	2366.2	2361.1	2373.8	2394.0	2373.8	2361.1	2366.2
17.5°	2411.8	2411.8	2396.6	2414.3	2416.8	2416.8	2427.0	2442.2	2427.0	2416.8	2416.8
20°	2414.3	2416.8	2399.1	2419.4	2419.4	2419.4	2429.5	2437.1	2429.5	2419.4	2419.4
22.5°	2373.8	2376.3	2358.6	2376.3	2376.3	2378.8	2383.9	2389.0	2383.9	2378.8	2376.3
25°	2295.2	2297.8	2282.6	2297.8	2295.2	2295.2	2300.3	2307.9	2300.3	2295.2	2295.2
27.5°	2178.7	2181.2	2161.0	2178.7	2176.2	2173.6	2181.2	2183.8	2181.2	2173.6	2176.2
30°	2024.2	2026.7	2009.0	2024.2	2021.6	2019.1	2029.2	2031.8	2029.2	2019.1	2021.6
32.5°	1839.2	1834.2	1821.5	1834.2	1831.6	1831.6	1836.7	1844.3	1836.7	1831.6	1831.6
35°	1616.3	1616.3	1608.7	1618.8	1611.2	1621.4	1621.4	1623.9	1621.4	1621.4	1611.2
37.5°	1388.3	1388.3	1383.2	1388.3	1385.8	1395.9	1395.9	1403.5	1395.9	1395.9	1385.8
40°	1150.2	1150.2	1145.1	1150.2	1157.8	1157.8	1155.2	1165.4	1155.2	1157.8	1157.8
42.5°	909.5	909.5	907.0	919.6	919.6	919.6	912.0	922.2	912.0	919.6	919.6
45°	661.2	656.1	653.6	653.6	656.1	666.3	656.1	668.8	656.1	666.3	656.1
47.5°	420.5	423.1	425.6	433.2	428.1	425.6	425.6	433.2	425.6	425.6	428.1
50°	258.4	260.9	260.9	266.0	258.4	263.5	260.9	266.0	260.9	263.5	258.4
52.5°	141.9	141.9	141.9	146.9	141.9	144.4	141.9	146.9	141.9	144.4	141.9
55°	73.5	73.5	73.5	76.0	73.5	73.5	73.5	76.0	73.5	73.5	73.5
57.5°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
60°	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
62.5°	25.3	22.8	22.8	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3
65°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
67.5°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
70°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
72.5°	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
75°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
77.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1955.8	1940.6	1963.4	1973.5	1965.9	1958.3	1965.9	1945.6	1940.6	1950.7	1922.8
5°	2031.8	2019.1	2039.4	2047.0	2039.4	2029.2	2029.2	2009.0	1998.8	2009.0	1976.0
7.5°	2107.8	2092.6	2115.4	2120.4	2107.8	2100.2	2100.2	2074.8	2062.2	2072.3	2031.8
10°	2186.3	2166.0	2188.8	2191.4	2181.2	2168.6	2166.0	2143.2	2125.5	2135.6	2090.0
12.5°	2275.0	2252.2	2277.5	2272.4	2267.4	2252.2	2249.6	2219.2	2201.5	2211.6	2166.0
15°	2361.1	2343.4	2363.6	2366.2	2353.5	2338.3	2328.2	2305.4	2285.1	2295.2	2244.6
17.5°	2414.3	2396.6	2411.8	2411.8	2404.2	2386.4	2381.4	2361.1	2333.2	2345.9	2295.2
20°	2419.4	2399.1	2416.8	2414.3	2406.7	2394.0	2389.0	2363.6	2340.8	2353.5	2302.8
22.5°	2376.3	2358.6	2376.3	2373.8	2363.6	2353.5	2348.4	2325.6	2300.3	2318.0	2267.4
25°	2297.8	2282.6	2297.8	2295.2	2282.6	2280.0	2269.9	2249.6	2226.8	2242.0	2193.9
27.5°	2178.7	2161.0	2181.2	2178.7	2168.6	2161.0	2155.9	2138.2	2110.3	2130.6	2085.0
30°	2024.2	2009.0	2026.7	2024.2	2014.0	2009.0	2003.9	1986.2	1960.8	1971.0	1938.0
32.5°	1834.2	1821.5	1834.2	1839.2	1816.4	1816.4	1816.4	1796.2	1775.9	1786.0	1753.1
35°	1618.8	1608.7	1616.3	1616.3	1606.2	1603.6	1603.6	1585.9	1568.2	1578.3	1545.4
37.5°	1388.3	1383.2	1388.3	1388.3	1378.2	1373.1	1375.6	1360.4	1345.2	1352.8	1322.4
40°	1150.2	1145.1	1150.2	1150.2	1140.0	1140.0	1140.0	1127.4	1112.2	1117.2	1091.9
42.5°	919.6	907.0	909.5	909.5	901.9	901.9	904.4	891.8	881.6	881.6	858.8
45°	653.6	653.6	656.1	661.2	651.1	648.5	653.6	643.5	638.4	638.4	618.1
47.5°	433.2	425.6	423.1	420.5	425.6	420.5	425.6	418.0	418.0	418.0	400.3
50°	266.0	260.9	260.9	258.4	260.9	255.9	260.9	255.9	253.3	258.4	245.7
52.5°	146.9	141.9	141.9	141.9	144.4	139.3	141.9	139.3	139.3	139.3	136.8
55°	76.0	73.5	73.5	73.5	73.5	70.9	73.5	73.5	73.5	76.0	73.5
57.5°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
60°	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
62.5°	25.3	22.8	22.8	25.3	22.8	25.3	22.8	22.8	22.8	22.8	22.8
65°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	17.7	20.3	20.3
67.5°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
70°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
72.5°	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
75°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
77.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1948.2	1933.0	1938.0	1933.0	1920.3	1922.8	1915.2	1915.2	1900.0	1897.5	1900.0
5°	1998.8	1981.1	1981.1	1971.0	1953.2	1950.7	1935.5	1935.5	1912.7	1905.1	1905.1
7.5°	2054.6	2036.8	2031.8	2019.1	1996.3	1986.2	1965.9	1958.3	1930.4	1917.8	1915.2
10°	2115.4	2095.1	2085.0	2069.8	2041.9	2024.2	1996.3	1986.2	1953.2	1927.9	1925.4
12.5°	2183.8	2166.0	2153.4	2133.1	2102.7	2077.4	2044.4	2026.7	1983.6	1955.8	1943.1
15°	2264.8	2244.6	2229.4	2204.0	2171.1	2140.7	2097.6	2077.4	2026.7	1988.7	1971.0
17.5°	2315.5	2292.7	2280.0	2249.6	2216.7	2181.2	2133.1	2107.8	2049.5	2001.4	1983.6
20°	2320.6	2302.8	2285.1	2257.2	2224.3	2183.8	2133.1	2107.8	2047.0	1998.8	1973.5
22.5°	2282.6	2267.4	2247.1	2224.3	2188.8	2148.3	2100.2	2077.4	2019.1	1968.4	1940.6
25°	2209.1	2196.4	2176.2	2148.3	2123.0	2079.9	2034.3	2019.1	1958.3	1915.2	1889.9
27.5°	2095.1	2087.5	2067.2	2041.9	2021.6	1986.2	1940.6	1927.9	1874.7	1836.7	1816.4
30°	1945.6	1940.6	1920.3	1897.5	1882.3	1849.4	1808.8	1803.8	1755.6	1727.8	1707.5
32.5°	1760.7	1755.6	1743.0	1720.2	1707.5	1679.6	1641.6	1646.7	1606.2	1583.4	1575.8
35°	1563.1	1547.9	1540.3	1520.0	1504.8	1484.6	1451.6	1459.2	1436.4	1418.7	1416.2
37.5°	1340.2	1325.0	1319.9	1304.7	1292.0	1274.3	1249.0	1259.1	1249.0	1241.4	1249.0
40°	1107.1	1094.4	1089.4	1074.2	1069.1	1056.4	1038.7	1064.0	1051.4	1066.6	1069.1
42.5°	874.0	861.4	861.4	851.2	843.6	841.1	828.4	861.4	861.4	886.7	899.4
45°	618.1	620.7	615.6	618.1	613.1	620.7	613.1	635.9	668.8	701.7	722.0
47.5°	410.4	402.8	412.9	410.4	407.9	418.0	428.1	450.9	488.9	534.5	562.4
50°	248.3	248.3	253.3	260.9	266.0	273.6	288.8	316.7	359.7	405.3	438.3
52.5°	141.9	139.3	144.4	146.9	159.6	169.7	187.5	217.9	260.9	311.6	342.0
55°	76.0	76.0	78.5	86.1	93.7	106.4	124.1	152.0	192.5	243.2	273.6
57.5°	45.6	45.6	48.1	50.7	58.3	68.4	83.6	106.4	141.9	184.9	212.8
60°	30.4	32.9	32.9	35.5	40.5	45.6	58.3	73.5	101.3	134.3	157.1
62.5°	25.3	25.3	25.3	27.9	30.4	32.9	40.5	53.2	70.9	96.3	114.0
65°	20.3	20.3	20.3	20.3	22.8	25.3	30.4	38.0	50.7	65.9	76.0
67.5°	15.2	15.2	17.7	17.7	17.7	20.3	22.8	27.9	35.5	45.6	53.2
70°	12.7	12.7	12.7	12.7	15.2	15.2	17.7	20.3	25.3	32.9	38.0
72.5°	10.1	10.1	10.1	10.1	12.7	12.7	12.7	15.2	17.7	22.8	25.3
75°	7.6	7.6	7.6	7.6	10.1	10.1	10.1	12.7	12.7	15.2	17.7
77.5°	5.1	5.1	5.1	5.1	7.6	7.6	7.6	7.6	10.1	10.1	10.1
80°	2.5	2.5	2.5	5.1	5.1	5.1	5.1	5.1	5.1	7.6	7.6
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.1	5.1
85°	0.0	0.0	2.5	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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



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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8	1917.8
2.5°	1882.3	1915.2	1877.2	1884.8	1872.2	1895.0	1864.6	1872.2	1877.2	1872.2	1874.7
5°	1884.8	1910.2	1867.1	1874.7	1854.4	1869.6	1841.8	1844.3	1844.3	1839.2	1836.7
7.5°	1892.4	1907.6	1862.0	1859.5	1834.2	1849.4	1816.4	1811.4	1808.8	1801.2	1803.8
10°	1895.0	1900.0	1851.9	1841.8	1811.4	1816.4	1783.5	1773.4	1765.8	1760.7	1758.2
12.5°	1912.7	1907.6	1851.9	1834.2	1796.2	1793.6	1758.2	1743.0	1730.3	1725.2	1722.7
15°	1935.5	1917.8	1857.0	1831.6	1788.6	1778.4	1740.4	1725.2	1707.5	1702.4	1697.4
17.5°	1945.6	1917.8	1851.9	1819.0	1770.8	1758.2	1720.2	1699.9	1682.2	1674.6	1669.5
20°	1933.0	1897.5	1831.6	1796.2	1745.5	1727.8	1689.8	1667.0	1649.2	1641.6	1636.6
22.5°	1905.1	1864.6	1801.2	1765.8	1715.1	1692.3	1659.4	1639.1	1618.8	1616.3	1608.7
25°	1857.0	1816.4	1763.2	1727.8	1682.2	1659.4	1629.0	1611.2	1591.0	1588.4	1585.9
27.5°	1786.0	1748.0	1707.5	1674.6	1634.0	1616.3	1593.5	1575.8	1558.0	1558.0	1553.0
30°	1684.7	1659.4	1623.9	1603.6	1570.7	1553.0	1537.8	1525.1	1507.4	1509.9	1504.8
32.5°	1555.5	1542.8	1517.5	1507.4	1482.0	1477.0	1461.8	1451.6	1436.4	1441.5	1436.4
35°	1411.1	1395.9	1395.9	1390.8	1378.2	1375.6	1368.0	1363.0	1352.8	1355.4	1355.4
37.5°	1246.4	1246.4	1261.6	1264.2	1261.6	1266.7	1264.2	1264.2	1254.0	1259.1	1256.6
40°	1076.7	1091.9	1119.8	1135.0	1140.0	1150.2	1162.8	1157.8	1152.7	1160.3	1157.8
42.5°	912.0	942.4	985.5	1010.8	1028.6	1043.8	1061.5	1061.5	1059.0	1069.1	1066.6
45°	754.9	782.8	841.1	884.2	914.6	937.4	957.6	965.2	967.8	977.9	975.4
47.5°	600.4	648.5	716.9	767.6	805.6	833.5	861.4	871.5	879.1	891.8	891.8
50°	476.3	537.1	615.6	666.3	711.9	742.3	770.1	785.3	795.5	805.6	805.6
52.5°	382.5	445.9	521.9	575.1	618.1	651.1	678.9	696.7	704.3	716.9	716.9
55°	311.6	369.9	440.8	488.9	532.0	562.4	585.2	600.4	608.0	618.1	618.1
57.5°	245.7	301.5	359.7	402.8	438.3	461.1	481.3	486.4	488.9	496.5	499.1
60°	184.9	228.0	276.1	309.1	334.4	349.6	364.8	362.3	359.7	364.8	359.7
62.5°	131.7	162.1	197.6	217.9	238.1	245.7	253.3	248.3	243.2	245.7	245.7
65°	88.7	111.5	131.7	146.9	157.1	162.1	164.7	162.1	159.6	162.1	159.6
67.5°	60.8	73.5	88.7	96.3	103.9	106.4	108.9	106.4	106.4	106.4	103.9
70°	40.5	48.1	58.3	63.3	65.9	68.4	70.9	68.4	68.4	68.4	68.4
72.5°	27.9	32.9	35.5	40.5	43.1	43.1	43.1	43.1	43.1	43.1	43.1
75°	17.7	20.3	22.8	25.3	27.9	27.9	27.9	27.9	27.9	27.9	27.9
77.5°	12.7	12.7	15.2	15.2	17.7	17.7	17.7	17.7	17.7	17.7	17.7
80°	7.6	7.6	10.1	10.1	10.1	10.1	12.7	10.1	12.7	12.7	12.7
82.5°	5.1	5.1	5.1	5.1	7.6	7.6	7.6	7.6	7.6	7.6	7.6
85°	2.5	2.5	2.5	2.5	2.5	2.5	5.1	2.5	5.1	5.1	5.1
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: P212769

CATALOG NUMBER: LD4B50D010TE EU4B30509730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1917.8	1917.8	1917.8	1917.8
2.5°	1874.7	1869.6	1854.4	1872.2
5°	1834.2	1829.1	1816.4	1829.1
7.5°	1793.6	1786.0	1775.9	1783.5
10°	1745.5	1740.4	1727.8	1735.4
12.5°	1710.0	1699.9	1692.3	1694.8
15°	1687.2	1677.1	1669.5	1672.0
17.5°	1656.8	1646.7	1639.1	1639.1
20°	1623.9	1613.8	1608.7	1606.2
22.5°	1596.0	1588.4	1585.9	1578.3
25°	1570.7	1565.6	1565.6	1555.5
27.5°	1542.8	1535.2	1535.2	1525.1
30°	1494.7	1492.2	1492.2	1484.6
32.5°	1431.4	1423.8	1428.8	1416.2
35°	1345.2	1340.2	1347.8	1337.6
37.5°	1251.5	1249.0	1254.0	1246.4
40°	1152.7	1152.7	1160.3	1147.6
42.5°	1066.6	1066.6	1074.2	1061.5
45°	972.8	980.4	988.0	977.9
47.5°	891.8	896.8	907.0	896.8
50°	810.7	815.7	823.3	813.2
52.5°	722.0	727.1	734.7	727.1
55°	620.7	625.7	633.3	628.3
57.5°	499.1	494.0	506.7	496.5
60°	362.3	352.1	354.7	354.7
62.5°	240.7	235.6	240.7	233.1
65°	159.6	157.1	157.1	157.1
67.5°	106.4	103.9	106.4	103.9
70°	68.4	68.4	68.4	68.4
72.5°	43.1	43.1	43.1	43.1
75°	27.9	27.9	27.9	27.9
77.5°	17.7	17.7	17.7	17.7
80°	12.7	12.7	12.7	12.7
82.5°	7.6	7.6	7.6	7.6
85°	5.1	5.1	5.1	5.1
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)