

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: P212744

Luminaire Tested: **LD4B40D010 EU4B30508027 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212744
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 EU4B30508027 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3548.9 lumens
Efficiency: N/A
Efficacy: 82.5 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

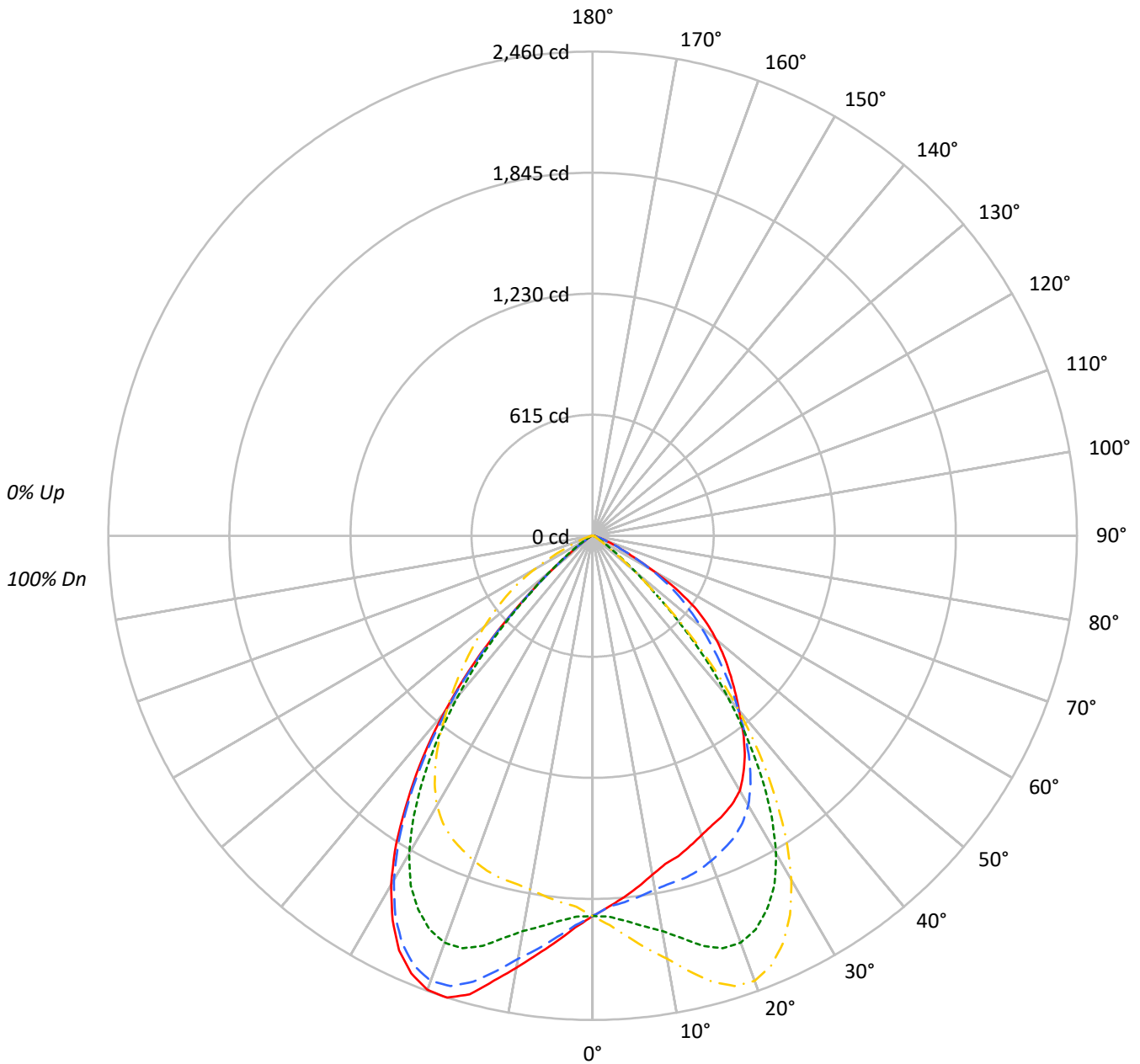
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWL11

Luminous Intensity Polar Plot





TEST NUMBER: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

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°	238304	238304	238304	238304
5°	228157	243325	255966	243325
10°	218959	255407	279054	255407
15°	215092	275391	307979	275391
20°	212395	288776	322274	288776
25°	213264	285164	316425	285164
30°	213014	265356	291520	265356
35°	202903	225203	246329	225203
40°	186151	171370	189033	171370
45°	171838	109075	117536	109075
50°	157198	52885	51427	52885
55°	136103	23053	16473	23053
60°	88143	11323	7549	11323
65°	46172	7442	5954	7442
70°	24848	5518	4616	5518
75°	13392	4861	3670	4861
80°	9092	3623	1847	3623
85°	7218	3680	0	3680



TEST NUMBER: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.3	5.3
10°-20°	589.2	16.6
20°-30°	916.1	25.8
30°-40°	925.2	26.1
40°-50°	585.8	16.5
50°-60°	245.9	6.9
60°-70°	77.9	2.2
70°-80°	17.9	0.5
80°-90°	2.6	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°	1693.6	47.7
0°-40°	2618.8	73.8
0°-60°	3450.6	97.2
0°-90°	3548.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3548.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1932	1932	1932	1932	1932	
5°	1843	1965	2067	1965	1843	173
15°	1684	2157	2412	2157	1684	475
25°	1567	2095	2325	2095	1567	722
35°	1348	1496	1636	1496	1348	837
45°	985	625	674	625	985	760
55°	633	107	77	107	633	546
65°	158	26	20	26	158	175
75°	28	10	8	10	28	34
85°	5	3	0	3	5	5
90°	0	0	0	0	0	



TEST NUMBER: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1886.1	1868.2	1883.5	1888.6	1888.6	1886.1	1891.2	1886.1	1878.4	1909.0	1886.1
5°	1842.7	1829.9	1842.7	1847.8	1850.3	1852.9	1858.0	1858.0	1855.4	1883.5	1868.2
7.5°	1796.7	1789.1	1799.3	1806.9	1817.1	1814.6	1822.3	1824.8	1829.9	1863.1	1847.8
10°	1748.2	1740.6	1753.3	1758.4	1771.2	1773.8	1778.9	1786.5	1796.7	1829.9	1824.8
12.5°	1707.4	1704.9	1712.5	1722.7	1735.5	1738.0	1743.1	1755.9	1771.2	1806.9	1809.5
15°	1684.4	1681.9	1689.5	1699.7	1710.0	1715.1	1720.2	1738.0	1753.3	1791.6	1801.8
17.5°	1651.3	1651.3	1658.9	1669.1	1681.9	1687.0	1694.6	1712.5	1732.9	1771.2	1784.0
20°	1618.1	1620.6	1625.7	1635.9	1648.7	1653.8	1661.5	1679.3	1702.3	1740.6	1758.4
22.5°	1590.0	1597.7	1600.2	1607.9	1620.6	1628.3	1630.8	1651.3	1671.7	1704.9	1727.8
25°	1567.0	1577.2	1577.2	1582.3	1597.7	1600.2	1602.8	1623.2	1641.0	1671.7	1694.6
27.5°	1536.4	1546.6	1546.6	1554.3	1564.5	1569.6	1569.6	1587.5	1605.3	1628.3	1646.2
30°	1495.6	1503.2	1503.2	1505.8	1516.0	1521.1	1518.5	1536.4	1549.2	1564.5	1582.3
32.5°	1426.7	1439.4	1434.3	1442.0	1447.1	1452.2	1447.1	1462.4	1472.6	1487.9	1493.0
35°	1347.5	1357.8	1350.1	1355.2	1365.4	1365.4	1362.9	1373.1	1378.2	1385.8	1388.4
37.5°	1255.7	1263.3	1258.2	1260.8	1265.9	1268.4	1263.3	1273.5	1273.5	1276.1	1271.0
40°	1156.1	1168.9	1161.2	1161.2	1166.3	1168.9	1161.2	1166.3	1171.4	1158.7	1148.5
42.5°	1069.4	1082.1	1074.5	1074.5	1074.5	1077.0	1066.8	1069.4	1069.4	1051.5	1036.2
45°	985.1	995.3	987.7	980.0	982.6	985.1	974.9	972.4	964.7	944.3	921.3
47.5°	903.5	913.7	903.5	898.4	898.4	898.4	885.6	877.9	867.7	839.7	811.6
50°	819.2	829.5	821.8	816.7	811.6	811.6	801.4	791.2	775.9	747.8	717.2
52.5°	732.5	740.1	732.5	727.4	722.3	722.3	709.5	701.8	684.0	655.9	622.7
55°	632.9	638.0	630.4	625.3	622.7	622.7	612.5	604.9	589.6	566.6	536.0
57.5°	500.2	510.4	497.7	502.8	502.8	500.2	492.6	490.0	484.9	464.5	441.5
60°	357.3	357.3	354.8	365.0	362.4	367.5	362.4	365.0	367.5	352.2	336.9
62.5°	234.8	242.5	237.4	242.5	247.6	247.6	245.0	250.1	255.2	247.6	239.9
65°	158.2	158.2	158.2	160.8	160.8	163.3	160.8	163.3	165.9	163.3	158.2
67.5°	104.6	107.2	104.6	107.2	104.6	107.2	107.2	107.2	109.7	107.2	104.6
70°	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	71.5	68.9	66.4
72.5°	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4
75°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
77.5°	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
80°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	10.2	12.8	10.2	10.2
82.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
85°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	2.6	5.1	2.6	2.6
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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1898.8	1891.2	1929.4	1896.3	1914.1	1911.6	1914.1	1929.4	1929.4	1937.1	1934.5
5°	1888.6	1881.0	1924.3	1898.8	1919.2	1919.2	1926.9	1949.9	1949.9	1965.2	1967.7
7.5°	1873.3	1875.8	1921.8	1906.5	1929.4	1932.0	1944.8	1972.8	1980.5	2000.9	2011.1
10°	1855.4	1865.6	1914.1	1909.0	1939.7	1942.2	1967.7	2000.9	2011.1	2039.2	2057.1
12.5°	1847.8	1865.6	1921.8	1926.9	1957.5	1970.3	1998.4	2041.7	2059.6	2092.8	2118.3
15°	1845.2	1870.7	1932.0	1949.9	1985.6	2003.5	2041.7	2092.8	2113.2	2156.6	2187.2
17.5°	1832.5	1865.6	1932.0	1960.1	1998.4	2016.2	2064.7	2123.4	2148.9	2197.4	2233.2
20°	1809.5	1845.2	1911.6	1947.3	1988.1	2013.7	2062.2	2123.4	2148.9	2200.0	2240.8
22.5°	1778.9	1814.6	1878.4	1919.2	1955.0	1983.0	2034.1	2092.8	2115.8	2164.2	2205.1
25°	1740.6	1776.3	1829.9	1870.7	1903.9	1929.4	1972.8	2034.1	2049.4	2095.3	2138.7
27.5°	1687.0	1720.2	1761.0	1799.3	1829.9	1850.3	1888.6	1942.2	1955.0	2000.9	2036.6
30°	1615.5	1635.9	1671.7	1697.2	1720.2	1740.6	1768.7	1817.1	1822.3	1863.1	1896.3
32.5°	1518.5	1528.8	1554.3	1567.0	1587.5	1595.1	1618.1	1658.9	1653.8	1692.1	1720.2
35°	1401.1	1406.2	1406.2	1421.6	1426.7	1429.2	1447.1	1470.1	1462.4	1495.6	1516.0
37.5°	1273.5	1271.0	1255.7	1255.7	1258.2	1250.6	1258.2	1268.4	1258.2	1283.7	1301.6
40°	1143.4	1128.1	1100.0	1084.7	1077.0	1074.5	1059.2	1071.9	1046.4	1064.3	1077.0
42.5°	1018.3	992.8	949.4	918.8	906.0	893.3	867.7	867.7	834.6	847.3	849.9
45°	890.7	847.3	788.6	760.5	727.4	707.0	673.8	640.6	617.6	625.3	617.6
47.5°	773.3	722.3	653.4	604.9	566.6	538.5	492.6	454.3	431.3	421.1	410.9
50°	671.2	620.2	541.1	479.8	441.5	408.3	362.4	319.0	290.9	275.6	268.0
52.5°	579.3	525.7	449.2	385.4	344.5	313.9	262.9	219.5	188.9	171.0	160.8
55°	492.6	444.1	372.6	313.9	275.6	245.0	194.0	153.1	125.1	107.2	94.4
57.5°	405.8	362.4	303.7	247.6	214.4	186.3	142.9	107.2	84.2	68.9	58.7
60°	311.4	278.2	229.7	186.3	158.2	135.3	102.1	74.0	58.7	45.9	40.8
62.5°	219.5	199.1	163.3	132.7	114.8	97.0	71.5	53.6	40.8	33.2	30.6
65°	148.0	132.7	112.3	89.3	76.6	66.4	51.0	38.3	30.6	25.5	23.0
67.5°	97.0	89.3	74.0	61.3	53.6	45.9	35.7	28.1	23.0	20.4	17.9
70°	63.8	58.7	48.5	40.8	38.3	33.2	25.5	20.4	17.9	15.3	15.3
72.5°	40.8	35.7	33.2	28.1	25.5	23.0	17.9	15.3	12.8	12.8	12.8
75°	25.5	23.0	20.4	17.9	17.9	15.3	12.8	12.8	10.2	10.2	10.2
77.5°	15.3	15.3	12.8	12.8	10.2	10.2	10.2	7.7	7.7	7.7	7.7
80°	10.2	10.2	7.7	7.7	7.7	7.7	5.1	5.1	5.1	5.1	5.1
82.5°	5.1	5.1	5.1	5.1	5.1	5.1	2.6	2.6	2.6	2.6	2.6
85°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1947.3	1952.4	1947.3	1962.6	1937.1	1965.2	1955.0	1960.1	1980.5	1972.8	1980.5
5°	1985.6	1995.8	1995.8	2013.7	1990.7	2023.9	2013.7	2023.9	2044.3	2044.3	2054.5
7.5°	2034.1	2046.8	2051.9	2069.8	2046.8	2087.7	2077.5	2090.2	2115.8	2115.8	2123.4
10°	2085.1	2100.4	2110.6	2131.1	2105.5	2151.5	2141.3	2159.1	2182.1	2184.7	2197.4
12.5°	2148.9	2169.3	2182.1	2200.0	2182.1	2228.0	2217.8	2235.7	2266.3	2268.9	2284.2
15°	2220.4	2245.9	2261.2	2281.6	2261.2	2312.3	2302.1	2322.5	2345.4	2355.7	2371.0
17.5°	2266.3	2297.0	2309.7	2332.7	2312.3	2363.3	2350.6	2378.6	2399.0	2404.1	2422.0
20°	2274.0	2302.1	2319.9	2337.8	2319.9	2371.0	2358.2	2381.2	2406.7	2411.8	2424.6
22.5°	2240.8	2263.8	2284.2	2299.5	2284.2	2335.2	2317.4	2342.9	2365.9	2371.0	2381.2
25°	2164.2	2192.3	2212.7	2225.5	2210.2	2258.7	2243.4	2266.3	2286.7	2297.0	2299.5
27.5°	2057.1	2082.6	2103.0	2110.6	2100.4	2146.4	2126.0	2154.0	2171.9	2177.0	2184.7
30°	1911.6	1934.5	1955.0	1960.1	1952.4	1985.6	1975.4	2000.9	2018.8	2023.9	2029.0
32.5°	1732.9	1755.9	1768.7	1773.8	1766.1	1799.3	1789.1	1809.5	1829.9	1829.9	1829.9
35°	1531.3	1551.7	1559.4	1574.7	1556.8	1590.0	1579.8	1597.7	1615.5	1615.5	1618.1
37.5°	1314.4	1329.7	1334.8	1350.1	1332.2	1362.9	1355.2	1370.5	1385.8	1383.3	1388.4
40°	1082.1	1097.4	1102.5	1115.3	1100.0	1125.5	1120.4	1135.7	1148.5	1148.5	1148.5
42.5°	857.5	867.7	867.7	880.5	865.2	888.2	888.2	898.4	911.1	908.6	908.6
45°	622.7	620.2	625.3	622.7	622.7	643.1	643.1	648.3	658.5	653.4	655.9
47.5°	413.5	416.0	405.8	413.5	403.2	421.1	421.1	421.1	428.8	423.7	428.8
50°	262.9	255.2	250.1	250.1	247.6	260.3	255.2	257.8	262.9	257.8	262.9
52.5°	148.0	145.5	140.4	142.9	137.8	140.4	140.4	140.4	142.9	140.4	145.5
55°	86.8	79.1	76.6	76.6	74.0	76.6	74.0	74.0	74.0	71.5	74.0
57.5°	51.0	48.5	45.9	45.9	43.4	43.4	43.4	43.4	43.4	43.4	43.4
60°	35.7	33.2	33.2	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
62.5°	28.1	25.5	25.5	25.5	23.0	23.0	23.0	23.0	23.0	25.5	23.0
65°	20.4	20.4	20.4	20.4	20.4	20.4	17.9	20.4	20.4	20.4	20.4
67.5°	17.9	17.9	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
70°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
72.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
75°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
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	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
85°	0.0	2.6	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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1988.1	1977.9	1955.0	1970.3	1972.8	1962.6	1975.4	1990.7	1975.4	1962.6	1972.8
5°	2062.2	2054.5	2034.1	2046.8	2049.4	2046.8	2054.5	2067.3	2054.5	2046.8	2049.4
7.5°	2136.2	2131.1	2108.1	2123.4	2128.5	2123.4	2131.1	2143.8	2131.1	2123.4	2128.5
10°	2207.6	2205.1	2182.1	2202.5	2205.1	2200.0	2207.6	2228.0	2207.6	2200.0	2205.1
12.5°	2289.3	2294.4	2268.9	2291.9	2294.4	2289.3	2299.5	2314.8	2299.5	2289.3	2294.4
15°	2383.7	2381.2	2360.8	2378.6	2383.7	2378.6	2391.4	2411.8	2391.4	2378.6	2383.7
17.5°	2429.7	2429.7	2414.4	2432.2	2434.8	2434.8	2445.0	2460.3	2445.0	2434.8	2434.8
20°	2432.2	2434.8	2416.9	2437.3	2437.3	2437.3	2447.5	2455.2	2447.5	2437.3	2437.3
22.5°	2391.4	2393.9	2376.1	2393.9	2393.9	2396.5	2401.6	2406.7	2401.6	2396.5	2393.9
25°	2312.3	2314.8	2299.5	2314.8	2312.3	2312.3	2317.4	2325.0	2317.4	2312.3	2312.3
27.5°	2194.9	2197.4	2177.0	2194.9	2192.3	2189.8	2197.4	2200.0	2197.4	2189.8	2192.3
30°	2039.2	2041.7	2023.9	2039.2	2036.6	2034.1	2044.3	2046.8	2044.3	2034.1	2036.6
32.5°	1852.9	1847.8	1835.0	1847.8	1845.2	1845.2	1850.3	1858.0	1850.3	1845.2	1845.2
35°	1628.3	1628.3	1620.6	1630.8	1623.2	1633.4	1633.4	1635.9	1633.4	1633.4	1623.2
37.5°	1398.6	1398.6	1393.5	1398.6	1396.0	1406.2	1406.2	1413.9	1406.2	1406.2	1396.0
40°	1158.7	1158.7	1153.6	1158.7	1166.3	1166.3	1163.8	1174.0	1163.8	1166.3	1166.3
42.5°	916.2	916.2	913.7	926.4	926.4	926.4	918.8	929.0	918.8	926.4	926.4
45°	666.1	661.0	658.5	658.5	661.0	671.2	661.0	673.8	661.0	671.2	661.0
47.5°	423.7	426.2	428.8	436.4	431.3	428.8	428.8	436.4	428.8	428.8	431.3
50°	260.3	262.9	262.9	268.0	260.3	265.4	262.9	268.0	262.9	265.4	260.3
52.5°	142.9	142.9	142.9	148.0	142.9	145.5	142.9	148.0	142.9	145.5	142.9
55°	74.0	74.0	74.0	76.6	74.0	74.0	74.0	76.6	74.0	74.0	74.0
57.5°	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4
60°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
62.5°	25.5	23.0	23.0	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
65°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
67.5°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
70°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
72.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
75°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1970.3	1955.0	1977.9	1988.1	1980.5	1972.8	1980.5	1960.1	1955.0	1965.2	1937.1
5°	2046.8	2034.1	2054.5	2062.2	2054.5	2044.3	2044.3	2023.9	2013.7	2023.9	1990.7
7.5°	2123.4	2108.1	2131.1	2136.2	2123.4	2115.8	2115.8	2090.2	2077.5	2087.7	2046.8
10°	2202.5	2182.1	2205.1	2207.6	2197.4	2184.7	2182.1	2159.1	2141.3	2151.5	2105.5
12.5°	2291.9	2268.9	2294.4	2289.3	2284.2	2268.9	2266.3	2235.7	2217.8	2228.0	2182.1
15°	2378.6	2360.8	2381.2	2383.7	2371.0	2355.7	2345.4	2322.5	2302.1	2312.3	2261.2
17.5°	2432.2	2414.4	2429.7	2429.7	2422.0	2404.1	2399.0	2378.6	2350.6	2363.3	2312.3
20°	2437.3	2416.9	2434.8	2432.2	2424.6	2411.8	2406.7	2381.2	2358.2	2371.0	2319.9
22.5°	2393.9	2376.1	2393.9	2391.4	2381.2	2371.0	2365.9	2342.9	2317.4	2335.2	2284.2
25°	2314.8	2299.5	2314.8	2312.3	2299.5	2297.0	2286.7	2266.3	2243.4	2258.7	2210.2
27.5°	2194.9	2177.0	2197.4	2194.9	2184.7	2177.0	2171.9	2154.0	2126.0	2146.4	2100.4
30°	2039.2	2023.9	2041.7	2039.2	2029.0	2023.9	2018.8	2000.9	1975.4	1985.6	1952.4
32.5°	1847.8	1835.0	1847.8	1852.9	1829.9	1829.9	1829.9	1809.5	1789.1	1799.3	1766.1
35°	1630.8	1620.6	1628.3	1628.3	1618.1	1615.5	1615.5	1597.7	1579.8	1590.0	1556.8
37.5°	1398.6	1393.5	1398.6	1398.6	1388.4	1383.3	1385.8	1370.5	1355.2	1362.9	1332.2
40°	1158.7	1153.6	1158.7	1158.7	1148.5	1148.5	1148.5	1135.7	1120.4	1125.5	1100.0
42.5°	926.4	913.7	916.2	916.2	908.6	908.6	911.1	898.4	888.2	888.2	865.2
45°	658.5	658.5	661.0	666.1	655.9	653.4	658.5	648.3	643.1	643.1	622.7
47.5°	436.4	428.8	426.2	423.7	428.8	423.7	428.8	421.1	421.1	421.1	403.2
50°	268.0	262.9	262.9	260.3	262.9	257.8	262.9	257.8	255.2	260.3	247.6
52.5°	148.0	142.9	142.9	142.9	145.5	140.4	142.9	140.4	140.4	140.4	137.8
55°	76.6	74.0	74.0	74.0	74.0	71.5	74.0	74.0	74.0	76.6	74.0
57.5°	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4	43.4
60°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
62.5°	25.5	23.0	23.0	25.5	23.0	25.5	23.0	23.0	23.0	23.0	23.0
65°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	17.9	20.4	20.4
67.5°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
70°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
72.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
75°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
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°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1962.6	1947.3	1952.4	1947.3	1934.5	1937.1	1929.4	1929.4	1914.1	1911.6	1914.1
5°	2013.7	1995.8	1995.8	1985.6	1967.7	1965.2	1949.9	1949.9	1926.9	1919.2	1919.2
7.5°	2069.8	2051.9	2046.8	2034.1	2011.1	2000.9	1980.5	1972.8	1944.8	1932.0	1929.4
10°	2131.1	2110.6	2100.4	2085.1	2057.1	2039.2	2011.1	2000.9	1967.7	1942.2	1939.7
12.5°	2200.0	2182.1	2169.3	2148.9	2118.3	2092.8	2059.6	2041.7	1998.4	1970.3	1957.5
15°	2281.6	2261.2	2245.9	2220.4	2187.2	2156.6	2113.2	2092.8	2041.7	2003.5	1985.6
17.5°	2332.7	2309.7	2297.0	2266.3	2233.2	2197.4	2148.9	2123.4	2064.7	2016.2	1998.4
20°	2337.8	2319.9	2302.1	2274.0	2240.8	2200.0	2148.9	2123.4	2062.2	2013.7	1988.1
22.5°	2299.5	2284.2	2263.8	2240.8	2205.1	2164.2	2115.8	2092.8	2034.1	1983.0	1955.0
25°	2225.5	2212.7	2192.3	2164.2	2138.7	2095.3	2049.4	2034.1	1972.8	1929.4	1903.9
27.5°	2110.6	2103.0	2082.6	2057.1	2036.6	2000.9	1955.0	1942.2	1888.6	1850.3	1829.9
30°	1960.1	1955.0	1934.5	1911.6	1896.3	1863.1	1822.3	1817.1	1768.7	1740.6	1720.2
32.5°	1773.8	1768.7	1755.9	1732.9	1720.2	1692.1	1653.8	1658.9	1618.1	1595.1	1587.5
35°	1574.7	1559.4	1551.7	1531.3	1516.0	1495.6	1462.4	1470.1	1447.1	1429.2	1426.7
37.5°	1350.1	1334.8	1329.7	1314.4	1301.6	1283.7	1258.2	1268.4	1258.2	1250.6	1258.2
40°	1115.3	1102.5	1097.4	1082.1	1077.0	1064.3	1046.4	1071.9	1059.2	1074.5	1077.0
42.5°	880.5	867.7	867.7	857.5	849.9	847.3	834.6	867.7	867.7	893.3	906.0
45°	622.7	625.3	620.2	622.7	617.6	625.3	617.6	640.6	673.8	707.0	727.4
47.5°	413.5	405.8	416.0	413.5	410.9	421.1	431.3	454.3	492.6	538.5	566.6
50°	250.1	250.1	255.2	262.9	268.0	275.6	290.9	319.0	362.4	408.3	441.5
52.5°	142.9	140.4	145.5	148.0	160.8	171.0	188.9	219.5	262.9	313.9	344.5
55°	76.6	76.6	79.1	86.8	94.4	107.2	125.1	153.1	194.0	245.0	275.6
57.5°	45.9	45.9	48.5	51.0	58.7	68.9	84.2	107.2	142.9	186.3	214.4
60°	30.6	33.2	33.2	35.7	40.8	45.9	58.7	74.0	102.1	135.3	158.2
62.5°	25.5	25.5	25.5	28.1	30.6	33.2	40.8	53.6	71.5	97.0	114.8
65°	20.4	20.4	20.4	20.4	23.0	25.5	30.6	38.3	51.0	66.4	76.6
67.5°	15.3	15.3	17.9	17.9	17.9	20.4	23.0	28.1	35.7	45.9	53.6
70°	12.8	12.8	12.8	12.8	15.3	15.3	17.9	20.4	25.5	33.2	38.3
72.5°	10.2	10.2	10.2	10.2	12.8	12.8	12.8	15.3	17.9	23.0	25.5
75°	7.7	7.7	7.7	7.7	10.2	10.2	10.2	12.8	12.8	15.3	17.9
77.5°	5.1	5.1	5.1	5.1	7.7	7.7	7.7	7.7	10.2	10.2	10.2
80°	2.6	2.6	2.6	5.1	5.1	5.1	5.1	5.1	5.1	7.7	7.7
82.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	5.1	5.1
85°	0.0	0.0	2.6	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1896.3	1929.4	1891.2	1898.8	1886.1	1909.0	1878.4	1886.1	1891.2	1886.1	1888.6
5°	1898.8	1924.3	1881.0	1888.6	1868.2	1883.5	1855.4	1858.0	1858.0	1852.9	1850.3
7.5°	1906.5	1921.8	1875.8	1873.3	1847.8	1863.1	1829.9	1824.8	1822.3	1814.6	1817.1
10°	1909.0	1914.1	1865.6	1855.4	1824.8	1829.9	1796.7	1786.5	1778.9	1773.8	1771.2
12.5°	1926.9	1921.8	1865.6	1847.8	1809.5	1806.9	1771.2	1755.9	1743.1	1738.0	1735.5
15°	1949.9	1932.0	1870.7	1845.2	1801.8	1791.6	1753.3	1738.0	1720.2	1715.1	1710.0
17.5°	1960.1	1932.0	1865.6	1832.5	1784.0	1771.2	1732.9	1712.5	1694.6	1687.0	1681.9
20°	1947.3	1911.6	1845.2	1809.5	1758.4	1740.6	1702.3	1679.3	1661.5	1653.8	1648.7
22.5°	1919.2	1878.4	1814.6	1778.9	1727.8	1704.9	1671.7	1651.3	1630.8	1628.3	1620.6
25°	1870.7	1829.9	1776.3	1740.6	1694.6	1671.7	1641.0	1623.2	1602.8	1600.2	1597.7
27.5°	1799.3	1761.0	1720.2	1687.0	1646.2	1628.3	1605.3	1587.5	1569.6	1569.6	1564.5
30°	1697.2	1671.7	1635.9	1615.5	1582.3	1564.5	1549.2	1536.4	1518.5	1521.1	1516.0
32.5°	1567.0	1554.3	1528.8	1518.5	1493.0	1487.9	1472.6	1462.4	1447.1	1452.2	1447.1
35°	1421.6	1406.2	1406.2	1401.1	1388.4	1385.8	1378.2	1373.1	1362.9	1365.4	1365.4
37.5°	1255.7	1255.7	1271.0	1273.5	1271.0	1276.1	1273.5	1273.5	1263.3	1268.4	1265.9
40°	1084.7	1100.0	1128.1	1143.4	1148.5	1158.7	1171.4	1166.3	1161.2	1168.9	1166.3
42.5°	918.8	949.4	992.8	1018.3	1036.2	1051.5	1069.4	1069.4	1066.8	1077.0	1074.5
45°	760.5	788.6	847.3	890.7	921.3	944.3	964.7	972.4	974.9	985.1	982.6
47.5°	604.9	653.4	722.3	773.3	811.6	839.7	867.7	877.9	885.6	898.4	898.4
50°	479.8	541.1	620.2	671.2	717.2	747.8	775.9	791.2	801.4	811.6	811.6
52.5°	385.4	449.2	525.7	579.3	622.7	655.9	684.0	701.8	709.5	722.3	722.3
55°	313.9	372.6	444.1	492.6	536.0	566.6	589.6	604.9	612.5	622.7	622.7
57.5°	247.6	303.7	362.4	405.8	441.5	464.5	484.9	490.0	492.6	500.2	502.8
60°	186.3	229.7	278.2	311.4	336.9	352.2	367.5	365.0	362.4	367.5	362.4
62.5°	132.7	163.3	199.1	219.5	239.9	247.6	255.2	250.1	245.0	247.6	247.6
65°	89.3	112.3	132.7	148.0	158.2	163.3	165.9	163.3	160.8	163.3	160.8
67.5°	61.3	74.0	89.3	97.0	104.6	107.2	109.7	107.2	107.2	107.2	104.6
70°	40.8	48.5	58.7	63.8	66.4	68.9	71.5	68.9	68.9	68.9	68.9
72.5°	28.1	33.2	35.7	40.8	43.4	43.4	43.4	43.4	43.4	43.4	43.4
75°	17.9	20.4	23.0	25.5	28.1	28.1	28.1	28.1	28.1	28.1	28.1
77.5°	12.8	12.8	15.3	15.3	17.9	17.9	17.9	17.9	17.9	17.9	17.9
80°	7.7	7.7	10.2	10.2	10.2	10.2	12.8	10.2	12.8	12.8	12.8
82.5°	5.1	5.1	5.1	5.1	7.7	7.7	7.7	7.7	7.7	7.7	7.7
85°	2.6	2.6	2.6	2.6	2.6	2.6	5.1	2.6	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: P212744

CATALOG NUMBER: LD4B40D010 EU4B30508027 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1932.0	1932.0	1932.0	1932.0
2.5°	1888.6	1883.5	1868.2	1886.1
5°	1847.8	1842.7	1829.9	1842.7
7.5°	1806.9	1799.3	1789.1	1796.7
10°	1758.4	1753.3	1740.6	1748.2
12.5°	1722.7	1712.5	1704.9	1707.4
15°	1699.7	1689.5	1681.9	1684.4
17.5°	1669.1	1658.9	1651.3	1651.3
20°	1635.9	1625.7	1620.6	1618.1
22.5°	1607.9	1600.2	1597.7	1590.0
25°	1582.3	1577.2	1577.2	1567.0
27.5°	1554.3	1546.6	1546.6	1536.4
30°	1505.8	1503.2	1503.2	1495.6
32.5°	1442.0	1434.3	1439.4	1426.7
35°	1355.2	1350.1	1357.8	1347.5
37.5°	1260.8	1258.2	1263.3	1255.7
40°	1161.2	1161.2	1168.9	1156.1
42.5°	1074.5	1074.5	1082.1	1069.4
45°	980.0	987.7	995.3	985.1
47.5°	898.4	903.5	913.7	903.5
50°	816.7	821.8	829.5	819.2
52.5°	727.4	732.5	740.1	732.5
55°	625.3	630.4	638.0	632.9
57.5°	502.8	497.7	510.4	500.2
60°	365.0	354.8	357.3	357.3
62.5°	242.5	237.4	242.5	234.8
65°	160.8	158.2	158.2	158.2
67.5°	107.2	104.6	107.2	104.6
70°	68.9	68.9	68.9	68.9
72.5°	43.4	43.4	43.4	43.4
75°	28.1	28.1	28.1	28.1
77.5°	17.9	17.9	17.9	17.9
80°	12.8	12.8	12.8	12.8
82.5°	7.7	7.7	7.7	7.7
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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°





















(END OF REPORT)