

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: P252605

Luminaire Tested: **LD6B40D010 EU6B30509040 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B40D010 EU6B30509040 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3613.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

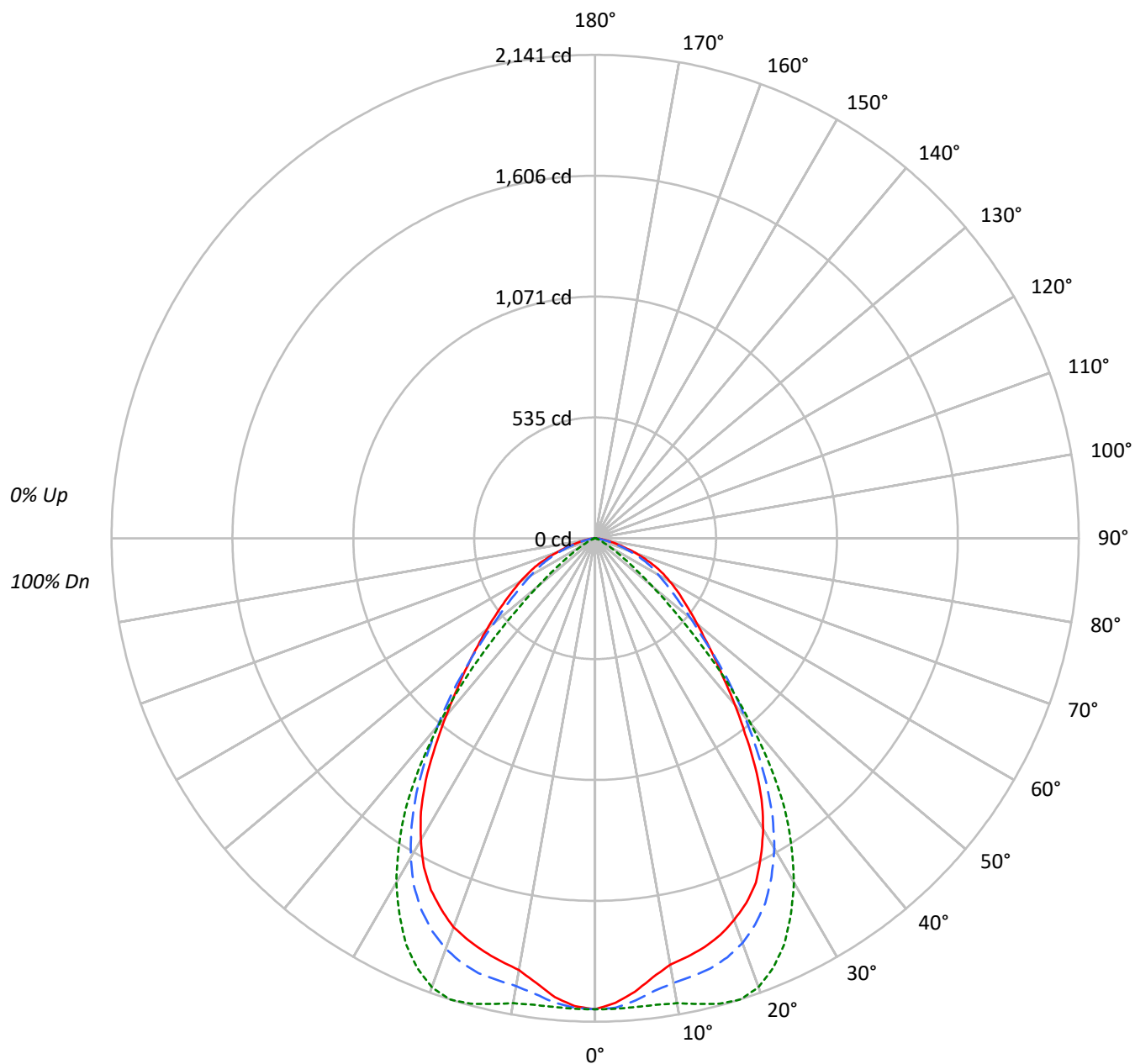
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252605

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1LI

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89		
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79		
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70		
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62		
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56		
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50		
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46		
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42		
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	136092	136092	136092
5°	132028	136455	133606
10°	127009	138509	128605
15°	126560	144148	128026
20°	124900	146832	127247
25°	121165	142696	123771
30°	112089	132617	116270
35°	98337	116583	104095
40°	81946	91391	87286
45°	68977	60295	73645
50°	59720	33047	63395
55°	54040	17551	55404
60°	49713	9121	49713
65°	45046	4832	43934
70°	36338	2766	33572
75°	24930	1815	23090
80°	16306	902	14502
85°	10854	1797	9057



TEST NUMBER: P252605

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.5	5.4
10°-20°	562.5	15.6
20°-30°	831.0	23.0
30°-40°	839.4	23.2
40°-50°	578.6	16.0
50°-60°	332.3	9.2
60°-70°	193.4	5.4
70°-80°	70.6	2.0
80°-90°	10.8	0.3
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°	1588.0	44.0
0°-40°	2427.4	67.2
0°-60°	3338.3	92.4
0°-90°	3613.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3613.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2086	2086	2086	2086	2086	
5°	2016	2055	2084	2064	2040	189
15°	1874	1973	2134	1994	1896	528
25°	1683	1782	1982	1818	1719	767
35°	1235	1319	1464	1379	1307	766
45°	748	757	654	805	798	581
55°	475	417	154	434	487	428
65°	292	246	31	244	285	286
75°	99	80	7	77	92	111
85°	14	7	2	10	12	18
90°	0	0	0	0	0	



TEST NUMBER: P252605

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0
2.5°	2059.4	2061.8	2064.3	2061.8	2064.3	2073.9	2066.7	2071.5	2071.5	2073.9	2081.1
5°	2016.0	2016.0	2020.9	2018.4	2025.7	2035.3	2028.1	2035.3	2037.7	2042.6	2054.6
7.5°	1960.6	1960.6	1963.0	1963.0	1972.6	1982.3	1977.4	1987.1	1996.7	2006.4	2020.9
10°	1917.2	1922.0	1922.0	1924.4	1934.0	1946.1	1943.7	1955.7	1965.4	1979.9	1999.2
12.5°	1897.9	1900.3	1900.3	1905.1	1914.7	1926.8	1924.4	1936.5	1950.9	1967.8	1987.1
15°	1873.8	1878.6	1876.2	1881.0	1890.6	1902.7	1900.3	1912.3	1929.2	1946.1	1972.6
17.5°	1842.4	1844.8	1847.2	1847.2	1856.9	1866.5	1866.5	1878.6	1897.9	1917.2	1946.1
20°	1799.0	1803.8	1803.8	1806.2	1813.5	1827.9	1825.5	1837.6	1856.9	1876.2	1907.5
22.5°	1748.4	1750.8	1750.8	1753.2	1765.2	1772.5	1774.9	1784.5	1801.4	1823.1	1852.0
25°	1683.2	1685.7	1683.2	1690.5	1695.3	1709.8	1704.9	1717.0	1736.3	1753.2	1782.1
27.5°	1589.2	1594.0	1594.0	1596.4	1608.5	1620.5	1620.5	1632.6	1649.5	1661.5	1690.5
30°	1487.9	1495.1	1487.9	1500.0	1504.8	1514.4	1521.7	1528.9	1543.4	1560.3	1586.8
32.5°	1372.2	1369.7	1372.2	1377.0	1391.4	1398.7	1403.5	1410.7	1425.2	1439.7	1461.4
35°	1234.7	1239.5	1241.9	1251.6	1251.6	1263.6	1266.0	1270.9	1292.6	1302.2	1319.1
37.5°	1090.0	1094.8	1097.2	1102.1	1111.7	1116.5	1123.8	1131.0	1145.5	1162.4	1172.0
40°	962.2	962.2	964.6	969.4	976.7	979.1	986.3	996.0	1005.6	1020.1	1029.7
42.5°	841.6	844.0	841.6	846.4	853.7	863.3	860.9	873.0	875.4	885.0	892.3
45°	747.6	747.6	742.7	747.6	747.6	757.2	754.8	759.6	757.2	762.0	757.2
47.5°	658.3	660.8	658.3	660.8	660.8	660.8	663.2	658.3	660.8	653.5	639.1
50°	588.4	590.8	586.0	588.4	586.0	583.6	586.0	578.8	576.4	566.7	552.2
52.5°	528.1	525.7	523.3	523.3	523.3	520.9	518.5	511.2	504.0	494.4	477.5
55°	475.1	472.7	470.2	470.2	465.4	463.0	463.0	455.8	448.5	436.5	417.2
57.5°	426.8	424.4	422.0	422.0	419.6	414.8	414.8	407.5	397.9	383.4	366.6
60°	381.0	381.0	381.0	378.6	378.6	373.8	373.8	366.6	356.9	342.4	323.1
62.5°	340.0	337.6	337.6	337.6	337.6	335.2	332.8	328.0	318.3	303.9	287.0
65°	291.8	291.8	291.8	291.8	289.4	289.4	289.4	282.1	277.3	262.9	246.0
67.5°	238.7	238.7	238.7	238.7	236.3	238.7	238.7	233.9	229.1	214.6	200.2
70°	190.5	188.1	185.7	188.1	185.7	185.7	188.1	183.3	180.9	168.8	154.3
72.5°	139.9	142.3	139.9	139.9	139.9	137.5	139.9	137.5	132.6	123.0	113.3
75°	98.9	101.3	101.3	98.9	98.9	98.9	96.5	96.5	91.6	84.4	79.6
77.5°	67.5	67.5	67.5	67.5	65.1	65.1	65.1	62.7	60.3	55.5	50.6
80°	43.4	43.4	43.4	43.4	41.0	41.0	41.0	38.6	38.6	33.8	28.9
82.5°	26.5	26.5	26.5	26.5	26.5	26.5	24.1	24.1	21.7	19.3	16.9
85°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	12.1	12.1	9.6	7.2
87.5°	4.8	4.8	7.2	7.2	7.2	7.2	7.2	7.2	4.8	4.8	4.8
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: P252605

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0
2.5°	2076.3	2078.7	2078.7	2078.7	2086.0	2088.4	2081.1	2073.9	2088.4	2086.0	2090.8
5°	2052.2	2059.4	2064.3	2066.7	2073.9	2078.7	2071.5	2069.1	2081.1	2083.6	2086.0
7.5°	2023.3	2035.3	2047.4	2052.2	2061.8	2066.7	2064.3	2064.3	2078.7	2083.6	2083.6
10°	2004.0	2020.9	2035.3	2047.4	2059.4	2066.7	2066.7	2069.1	2086.0	2090.8	2095.6
12.5°	1999.2	2020.9	2040.1	2057.0	2066.7	2078.7	2081.1	2088.4	2105.3	2112.5	2112.5
15°	1987.1	2016.0	2040.1	2061.8	2076.3	2090.8	2095.6	2110.1	2129.4	2134.2	2139.0
17.5°	1965.4	1994.3	2023.3	2049.8	2069.1	2081.1	2095.6	2110.1	2134.2	2141.4	2143.8
20°	1926.8	1960.6	1989.5	2016.0	2035.3	2052.2	2066.7	2083.6	2105.3	2114.9	2117.3
22.5°	1868.9	1902.7	1931.6	1960.6	1979.9	1994.3	2008.8	2028.1	2049.8	2059.4	2059.4
25°	1799.0	1830.3	1861.7	1883.4	1902.7	1919.6	1926.8	1948.5	1970.2	1982.3	1982.3
27.5°	1709.8	1738.7	1767.6	1791.8	1803.8	1818.3	1830.3	1849.6	1866.5	1876.2	1885.8
30°	1596.4	1625.4	1651.9	1676.0	1690.5	1704.9	1717.0	1731.5	1748.4	1760.4	1762.8
32.5°	1473.4	1497.6	1524.1	1548.2	1562.7	1567.5	1579.5	1594.0	1608.5	1618.1	1620.5
35°	1338.4	1355.3	1372.2	1393.9	1408.3	1408.3	1420.4	1430.0	1442.1	1463.8	1459.0
37.5°	1179.2	1203.3	1215.4	1222.6	1232.3	1241.9	1244.3	1256.4	1270.9	1275.7	1282.9
40°	1029.7	1037.0	1044.2	1044.2	1053.8	1053.8	1053.8	1056.2	1070.7	1073.1	1082.8
42.5°	880.2	880.2	873.0	865.7	868.1	865.7	853.7	853.7	860.9	870.6	870.6
45°	740.3	723.5	701.8	684.9	672.8	668.0	653.5	653.5	651.1	653.5	663.2
47.5°	622.2	593.2	557.1	523.3	511.2	501.6	479.9	470.2	465.4	467.8	472.7
50°	523.3	492.0	451.0	410.0	388.3	376.2	349.7	332.8	330.4	325.6	335.2
52.5°	451.0	412.4	369.0	320.7	299.0	279.7	250.8	236.3	226.7	226.7	229.1
55°	388.3	347.3	299.0	250.8	229.1	214.6	185.7	166.4	156.7	154.3	161.6
57.5°	335.2	296.6	248.4	200.2	178.5	161.6	132.6	115.8	108.5	103.7	106.1
60°	294.2	255.6	207.4	161.6	142.3	123.0	98.9	79.6	69.9	69.9	72.3
62.5°	255.6	219.4	176.0	132.6	115.8	98.9	72.3	55.5	48.2	45.8	48.2
65°	217.0	183.3	147.1	110.9	94.0	79.6	57.9	43.4	33.8	31.3	33.8
67.5°	176.0	149.5	118.2	89.2	74.8	62.7	43.4	31.3	24.1	21.7	24.1
70°	137.5	113.3	89.2	65.1	55.5	45.8	31.3	24.1	16.9	14.5	16.9
72.5°	98.9	82.0	62.7	45.8	38.6	31.3	21.7	16.9	12.1	9.6	12.1
75°	67.5	55.5	41.0	28.9	24.1	21.7	14.5	9.6	7.2	7.2	7.2
77.5°	43.4	33.8	26.5	19.3	14.5	12.1	7.2	4.8	4.8	4.8	4.8
80°	24.1	19.3	14.5	9.6	7.2	7.2	4.8	4.8	2.4	2.4	2.4
82.5°	14.5	9.6	7.2	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4
85°	7.2	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
87.5°	2.4	2.4	2.4	2.4	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: P252605

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0
2.5°	2081.1	2083.6	2076.3	2086.0	2078.7	2088.4	2088.4	2078.7	2081.1	2076.3	2086.0
5°	2076.3	2076.3	2071.5	2078.7	2069.1	2078.7	2076.3	2059.4	2064.3	2054.6	2064.3
7.5°	2076.3	2071.5	2064.3	2071.5	2059.4	2066.7	2057.0	2040.1	2035.3	2023.3	2023.3
10°	2083.6	2076.3	2066.7	2069.1	2057.0	2059.4	2045.0	2020.9	2013.6	1999.2	1994.3
12.5°	2100.4	2093.2	2078.7	2083.6	2066.7	2066.7	2047.4	2018.4	2004.0	1984.7	1979.9
15°	2124.5	2112.5	2095.6	2098.0	2081.1	2071.5	2047.4	2013.6	1994.3	1967.8	1960.6
17.5°	2129.4	2117.3	2095.6	2095.6	2073.9	2061.8	2032.9	1994.3	1970.2	1943.7	1929.2
20°	2102.8	2090.8	2066.7	2064.3	2045.0	2028.1	1996.7	1958.2	1934.0	1905.1	1893.0
22.5°	2047.4	2032.9	2011.2	2008.8	1989.5	1979.9	1946.1	1907.5	1883.4	1854.5	1844.8
25°	1965.4	1958.2	1936.5	1934.0	1917.2	1905.1	1876.2	1840.0	1818.3	1789.3	1779.7
27.5°	1868.9	1861.7	1840.0	1840.0	1820.7	1813.5	1786.9	1753.2	1736.3	1709.8	1697.7
30°	1753.2	1743.5	1731.5	1729.1	1712.2	1704.9	1680.8	1649.5	1632.6	1610.9	1606.1
32.5°	1615.7	1608.5	1601.2	1598.8	1582.0	1574.7	1557.8	1526.5	1512.0	1492.7	1485.5
35°	1456.6	1451.7	1444.5	1442.1	1434.9	1427.6	1410.7	1386.6	1379.4	1364.9	1357.7
37.5°	1273.3	1278.1	1273.3	1273.3	1266.0	1268.5	1254.0	1239.5	1232.3	1222.6	1217.8
40°	1075.5	1085.2	1092.4	1092.4	1090.0	1099.7	1097.2	1085.2	1082.8	1077.9	1075.5
42.5°	875.4	880.2	894.7	904.3	901.9	926.0	928.4	938.1	945.3	940.5	942.9
45°	665.6	680.0	699.3	709.0	721.0	752.4	769.3	788.6	805.4	815.1	812.7
47.5°	479.9	496.8	518.5	532.9	554.6	593.2	636.6	660.8	684.9	696.9	709.0
50°	347.3	364.1	390.7	412.4	426.8	479.9	525.7	557.1	583.6	600.5	612.5
52.5°	243.6	262.9	291.8	311.1	332.8	383.4	436.5	472.7	501.6	523.3	535.4
55°	168.8	190.5	217.0	236.3	260.4	313.5	364.1	402.7	434.1	453.4	467.8
57.5°	118.2	137.5	164.0	180.9	205.0	255.6	306.3	344.8	376.2	395.5	412.4
60°	79.6	98.9	125.4	142.3	161.6	212.2	258.0	299.0	328.0	347.3	364.1
62.5°	55.5	72.3	98.9	115.8	132.6	176.0	219.4	255.6	284.6	306.3	320.7
65°	43.4	57.9	79.6	94.0	110.9	147.1	183.3	214.6	243.6	265.3	274.9
67.5°	31.3	45.8	62.7	74.8	86.8	118.2	149.5	173.6	200.2	217.0	229.1
70°	21.7	31.3	45.8	55.5	65.1	89.2	113.3	135.0	154.3	166.4	176.0
72.5°	16.9	21.7	31.3	38.6	45.8	62.7	82.0	98.9	113.3	123.0	132.6
75°	9.6	14.5	21.7	26.5	31.3	43.4	55.5	67.5	77.2	84.4	89.2
77.5°	4.8	7.2	12.1	14.5	19.3	26.5	36.2	43.4	50.6	55.5	60.3
80°	4.8	4.8	7.2	7.2	9.6	14.5	19.3	24.1	28.9	33.8	36.2
82.5°	2.4	2.4	4.8	4.8	4.8	7.2	9.6	14.5	16.9	19.3	21.7
85°	2.4	2.4	2.4	2.4	2.4	4.8	4.8	7.2	9.6	12.1	12.1
87.5°	0.0	0.0	2.4	2.4	2.4	2.4	2.4	4.8	4.8	4.8	7.2
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: P252605

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0	2086.0
2.5°	2078.7	2083.6	2081.1	2086.0	2078.7	2076.3	2081.1	2073.9
5°	2052.2	2054.6	2052.2	2052.2	2047.4	2042.6	2047.4	2040.1
7.5°	2011.2	2011.2	2004.0	2004.0	1994.3	1989.5	1989.5	1987.1
10°	1977.4	1970.2	1963.0	1965.4	1950.9	1946.1	1943.7	1941.3
12.5°	1960.6	1955.7	1943.7	1943.7	1929.2	1924.4	1922.0	1919.6
15°	1941.3	1931.6	1922.0	1919.6	1907.5	1902.7	1900.3	1895.5
17.5°	1907.5	1900.3	1888.2	1888.2	1876.2	1873.8	1868.9	1866.5
20°	1871.3	1861.7	1852.0	1852.0	1837.6	1837.6	1830.3	1832.8
22.5°	1820.7	1813.5	1803.8	1803.8	1791.8	1789.3	1782.1	1779.7
25°	1760.4	1750.8	1743.5	1741.1	1731.5	1726.6	1724.2	1719.4
27.5°	1680.8	1673.6	1666.4	1661.5	1649.5	1647.1	1639.8	1642.2
30°	1582.0	1577.1	1574.7	1569.9	1555.4	1550.6	1550.6	1543.4
32.5°	1473.4	1466.2	1461.4	1454.1	1442.1	1439.7	1432.4	1434.9
35°	1340.8	1331.2	1323.9	1326.3	1311.9	1309.5	1304.6	1307.0
37.5°	1203.3	1193.7	1184.1	1181.6	1169.6	1169.6	1162.4	1162.4
40°	1061.1	1051.4	1046.6	1046.6	1032.1	1034.5	1027.3	1024.9
42.5°	933.3	923.6	921.2	918.8	911.6	909.1	901.9	904.3
45°	812.7	810.3	810.3	805.4	798.2	795.8	798.2	798.2
47.5°	706.6	709.0	706.6	706.6	701.8	706.6	701.8	704.2
50°	617.3	622.2	622.2	622.2	619.8	622.2	622.2	624.6
52.5°	542.6	549.8	547.4	549.8	547.4	552.2	549.8	552.2
55°	477.5	482.3	484.7	487.1	487.1	487.1	487.1	487.1
57.5°	417.2	424.4	426.8	429.3	429.3	434.1	429.3	429.3
60°	369.0	376.2	378.6	381.0	381.0	383.4	378.6	381.0
62.5°	325.6	332.8	332.8	335.2	335.2	335.2	330.4	332.8
65°	282.1	284.6	287.0	287.0	284.6	284.6	282.1	284.6
67.5°	233.9	236.3	233.9	233.9	231.5	231.5	226.7	229.1
70°	180.9	180.9	183.3	180.9	178.5	180.9	178.5	176.0
72.5°	135.0	135.0	135.0	132.6	132.6	130.2	132.6	132.6
75°	91.6	91.6	94.0	94.0	94.0	94.0	91.6	91.6
77.5°	60.3	60.3	60.3	60.3	62.7	60.3	60.3	60.3
80°	38.6	38.6	41.0	41.0	38.6	38.6	38.6	38.6
82.5°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
85°	14.5	14.5	14.5	14.5	12.1	12.1	12.1	12.1
87.5°	7.2	7.2	7.2	7.2	7.2	7.2	4.8	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)