

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: P252602

Luminaire Tested: **LD6B40D010 EU6B30509027 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252602  
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 EU6B30509027 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3420.0 lumens  
Efficiency: N/A  
Efficacy: 79.5 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

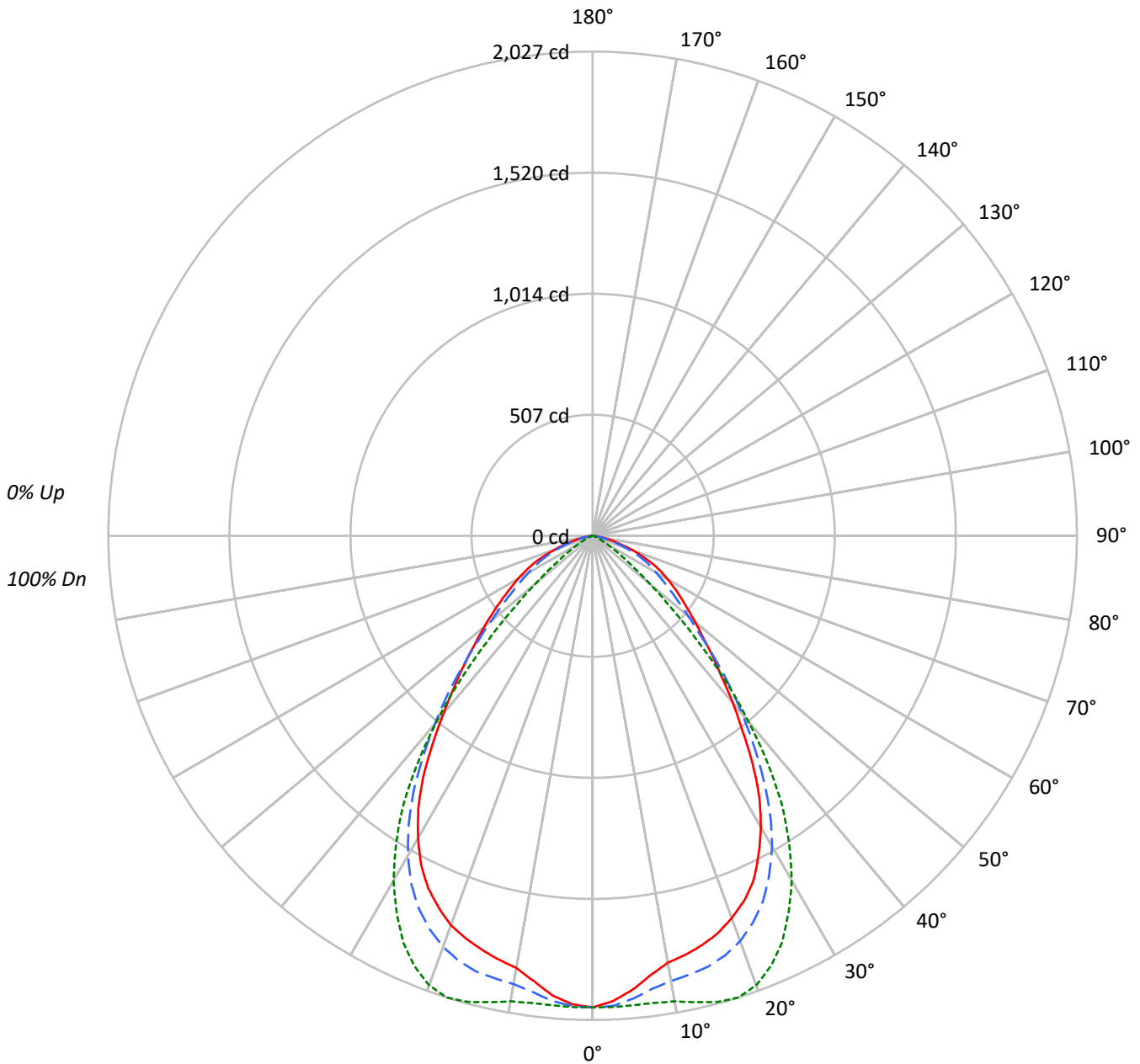
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	128818	128818	128818
5°	124974	129166	126474
10°	120219	131110	121736
15°	119799	136448	121184
20°	118228	138987	120450
25°	114694	135073	117163
30°	106100	125536	110055
35°	93080	110355	98536
40°	77569	86511	82619
45°	65286	57075	69715
50°	56533	31281	60005
55°	51150	16618	52447
60°	47065	8638	47065
65°	42638	4585	41588
70°	34392	2613	31779
75°	23594	1714	21855
80°	15442	864	13713
85°	10255	1722	8533



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.1	5.4
10°-20°	532.4	15.6
20°-30°	786.6	23.0
30°-40°	794.6	23.2
40°-50°	547.7	16.0
50°-60°	314.5	9.2
60°-70°	183.1	5.4
70°-80°	66.8	2.0
80°-90°	10.2	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°	1503.2	44.0
0°-40°	2297.7	67.2
0°-60°	3159.9	92.4
0°-90°	3420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3420.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1974	1974	1974	1974	1974	
5°	1908	1945	1972	1954	1931	179
15°	1774	1867	2020	1888	1794	500
25°	1593	1687	1876	1721	1628	726
35°	1169	1249	1386	1306	1237	725
45°	708	717	619	762	756	550
55°	450	395	146	411	461	405
65°	276	233	30	231	269	270
75°	94	75	7	73	87	105
85°	14	7	2	9	11	17
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°	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5
2.5°	1949.4	1951.7	1954.0	1951.7	1954.0	1963.1	1956.3	1960.8	1960.8	1963.1	1970.0
5°	1908.3	1908.3	1912.9	1910.6	1917.5	1926.6	1919.8	1926.6	1928.9	1933.4	1944.9
7.5°	1855.8	1855.8	1858.1	1858.1	1867.2	1876.4	1871.8	1880.9	1890.1	1899.2	1912.9
10°	1814.7	1819.3	1819.3	1821.6	1830.7	1842.1	1839.9	1851.3	1860.4	1874.1	1892.4
12.5°	1796.5	1798.8	1798.8	1803.3	1812.5	1823.9	1821.6	1833.0	1846.7	1862.7	1880.9
15°	1773.7	1778.2	1775.9	1780.5	1789.6	1801.1	1798.8	1810.2	1826.2	1842.1	1867.2
17.5°	1744.0	1746.3	1748.5	1748.5	1757.7	1766.8	1766.8	1778.2	1796.5	1814.7	1842.1
20°	1702.9	1707.5	1707.5	1709.7	1716.6	1730.3	1728.0	1739.4	1757.7	1775.9	1805.6
22.5°	1655.0	1657.2	1657.2	1659.5	1670.9	1677.8	1680.1	1689.2	1705.2	1725.7	1753.1
25°	1593.3	1595.6	1593.3	1600.2	1604.7	1618.4	1613.9	1625.3	1643.5	1659.5	1686.9
27.5°	1504.3	1508.9	1508.9	1511.1	1522.6	1534.0	1534.0	1545.4	1561.4	1572.8	1600.2
30°	1408.4	1415.3	1408.4	1419.8	1424.4	1433.5	1440.4	1447.2	1460.9	1476.9	1502.0
32.5°	1298.9	1296.6	1298.9	1303.4	1317.1	1324.0	1328.5	1335.4	1349.1	1362.8	1383.3
35°	1168.7	1173.3	1175.6	1184.7	1184.7	1196.1	1198.4	1203.0	1223.5	1232.7	1248.6
37.5°	1031.8	1036.3	1038.6	1043.2	1052.3	1056.9	1063.7	1070.6	1084.3	1100.3	1109.4
40°	910.8	910.8	913.1	917.6	924.5	926.8	933.6	942.8	951.9	965.6	974.7
42.5°	796.7	798.9	796.7	801.2	808.1	817.2	814.9	826.3	828.6	837.8	844.6
45°	707.6	707.6	703.1	707.6	707.6	716.8	714.5	719.1	716.8	721.3	716.8
47.5°	623.2	625.5	623.2	625.5	625.5	625.5	627.7	623.2	625.5	618.6	604.9
50°	557.0	559.3	554.7	557.0	554.7	552.4	554.7	547.8	545.6	536.4	522.7
52.5°	499.9	497.6	495.3	495.3	495.3	493.1	490.8	483.9	477.1	468.0	452.0
55°	449.7	447.4	445.1	445.1	440.6	438.3	438.3	431.4	424.6	413.2	394.9
57.5°	404.0	401.8	399.5	399.5	397.2	392.6	392.6	385.8	376.6	362.9	347.0
60°	360.7	360.7	360.7	358.4	358.4	353.8	353.8	347.0	337.8	324.1	305.9
62.5°	321.9	319.6	319.6	319.6	319.6	317.3	315.0	310.4	301.3	287.6	271.6
65°	276.2	276.2	276.2	276.2	273.9	273.9	273.9	267.1	262.5	248.8	232.8
67.5°	226.0	226.0	226.0	226.0	223.7	226.0	226.0	221.4	216.9	203.2	189.5
70°	180.3	178.1	175.8	178.1	175.8	175.8	178.1	173.5	171.2	159.8	146.1
72.5°	132.4	134.7	132.4	132.4	132.4	130.1	132.4	130.1	125.5	116.4	107.3
75°	93.6	95.9	95.9	93.6	93.6	93.6	91.3	91.3	86.7	79.9	75.3
77.5°	63.9	63.9	63.9	63.9	61.6	61.6	61.6	59.4	57.1	52.5	47.9
80°	41.1	41.1	41.1	41.1	38.8	38.8	38.8	36.5	36.5	32.0	27.4
82.5°	25.1	25.1	25.1	25.1	25.1	25.1	22.8	22.8	20.5	18.3	16.0
85°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	11.4	11.4	9.1	6.8
87.5°	4.6	4.6	6.8	6.8	6.8	6.8	6.8	6.8	4.6	4.6	4.6
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°	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5
2.5°	1965.4	1967.7	1967.7	1967.7	1974.5	1976.8	1970.0	1963.1	1976.8	1974.5	1979.1
5°	1942.6	1949.4	1954.0	1956.3	1963.1	1967.7	1960.8	1958.6	1970.0	1972.3	1974.5
7.5°	1915.2	1926.6	1938.0	1942.6	1951.7	1956.3	1954.0	1954.0	1967.7	1972.3	1972.3
10°	1896.9	1912.9	1926.6	1938.0	1949.4	1956.3	1956.3	1958.6	1974.5	1979.1	1983.7
12.5°	1892.4	1912.9	1931.2	1947.1	1956.3	1967.7	1970.0	1976.8	1992.8	1999.6	1999.6
15°	1880.9	1908.3	1931.2	1951.7	1965.4	1979.1	1983.7	1997.4	2015.6	2020.2	2024.8
17.5°	1860.4	1887.8	1915.2	1940.3	1958.6	1970.0	1983.7	1997.4	2020.2	2027.0	2029.3
20°	1823.9	1855.8	1883.2	1908.3	1926.6	1942.6	1956.3	1972.3	1992.8	2001.9	2004.2
22.5°	1769.1	1801.1	1828.4	1855.8	1874.1	1887.8	1901.5	1919.8	1940.3	1949.4	1949.4
25°	1702.9	1732.6	1762.2	1782.8	1801.1	1817.0	1823.9	1844.4	1865.0	1876.4	1876.4
27.5°	1618.4	1645.8	1673.2	1696.0	1707.5	1721.2	1732.6	1750.8	1766.8	1775.9	1785.1
30°	1511.1	1538.5	1563.7	1586.5	1600.2	1613.9	1625.3	1639.0	1655.0	1666.4	1668.7
32.5°	1394.7	1417.6	1442.7	1465.5	1479.2	1483.8	1495.2	1508.9	1522.6	1531.7	1534.0
35°	1266.9	1282.9	1298.9	1319.4	1333.1	1333.1	1344.5	1353.6	1365.1	1385.6	1381.0
37.5°	1116.2	1139.1	1150.5	1157.3	1166.5	1175.6	1177.9	1189.3	1203.0	1207.5	1214.4
40°	974.7	981.6	988.4	988.4	997.5	997.5	997.5	999.8	1013.5	1015.8	1024.9
42.5°	833.2	833.2	826.3	819.5	821.8	819.5	808.1	808.1	814.9	824.1	824.1
45°	700.8	684.8	664.3	648.3	636.9	632.3	618.6	618.6	616.3	618.6	627.7
47.5°	588.9	561.5	527.3	495.3	483.9	474.8	454.3	445.1	440.6	442.8	447.4
50°	495.3	465.7	426.9	388.1	367.5	356.1	331.0	315.0	312.7	308.2	317.3
52.5°	426.9	390.3	349.3	303.6	283.1	264.8	237.4	223.7	214.6	214.6	216.9
55°	367.5	328.7	283.1	237.4	216.9	203.2	175.8	157.5	148.4	146.1	152.9
57.5°	317.3	280.8	235.1	189.5	168.9	152.9	125.5	109.6	102.7	98.2	100.4
60°	278.5	242.0	196.3	152.9	134.7	116.4	93.6	75.3	66.2	66.2	68.5
62.5°	242.0	207.7	166.6	125.5	109.6	93.6	68.5	52.5	45.7	43.4	45.7
65°	205.4	173.5	139.2	105.0	89.0	75.3	54.8	41.1	32.0	29.7	32.0
67.5°	166.6	141.5	111.9	84.5	70.8	59.4	41.1	29.7	22.8	20.5	22.8
70°	130.1	107.3	84.5	61.6	52.5	43.4	29.7	22.8	16.0	13.7	16.0
72.5°	93.6	77.6	59.4	43.4	36.5	29.7	20.5	16.0	11.4	9.1	11.4
75°	63.9	52.5	38.8	27.4	22.8	20.5	13.7	9.1	6.8	6.8	6.8
77.5°	41.1	32.0	25.1	18.3	13.7	11.4	6.8	4.6	4.6	4.6	4.6
80°	22.8	18.3	13.7	9.1	6.8	6.8	4.6	4.6	2.3	2.3	2.3
82.5°	13.7	9.1	6.8	4.6	4.6	2.3	2.3	2.3	2.3	2.3	2.3
85°	6.8	4.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	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°	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5
2.5°	1970.0	1972.3	1965.4	1974.5	1967.7	1976.8	1976.8	1967.7	1970.0	1965.4	1974.5
5°	1965.4	1965.4	1960.8	1967.7	1958.6	1967.7	1965.4	1949.4	1954.0	1944.9	1954.0
7.5°	1965.4	1960.8	1954.0	1960.8	1949.4	1956.3	1947.1	1931.2	1926.6	1915.2	1915.2
10°	1972.3	1965.4	1956.3	1958.6	1947.1	1949.4	1935.7	1912.9	1906.1	1892.4	1887.8
12.5°	1988.2	1981.4	1967.7	1972.3	1956.3	1956.3	1938.0	1910.6	1896.9	1878.7	1874.1
15°	2011.1	1999.6	1983.7	1985.9	1970.0	1960.8	1938.0	1906.1	1887.8	1862.7	1855.8
17.5°	2015.6	2004.2	1983.7	1983.7	1963.1	1951.7	1924.3	1887.8	1865.0	1839.9	1826.2
20°	1990.5	1979.1	1956.3	1954.0	1935.7	1919.8	1890.1	1853.6	1830.7	1803.3	1791.9
22.5°	1938.0	1924.3	1903.8	1901.5	1883.2	1874.1	1842.1	1805.6	1782.8	1755.4	1746.3
25°	1860.4	1853.6	1833.0	1830.7	1814.7	1803.3	1775.9	1741.7	1721.2	1693.8	1684.6
27.5°	1769.1	1762.2	1741.7	1741.7	1723.4	1716.6	1691.5	1659.5	1643.5	1618.4	1607.0
30°	1659.5	1650.4	1639.0	1636.7	1620.7	1613.9	1591.0	1561.4	1545.4	1524.8	1520.3
32.5°	1529.4	1522.6	1515.7	1513.4	1497.5	1490.6	1474.6	1444.9	1431.3	1413.0	1406.1
35°	1378.8	1374.2	1367.3	1365.1	1358.2	1351.4	1335.4	1312.6	1305.7	1292.0	1285.2
37.5°	1205.3	1209.8	1205.3	1205.3	1198.4	1200.7	1187.0	1173.3	1166.5	1157.3	1152.8
40°	1018.1	1027.2	1034.1	1034.1	1031.8	1040.9	1038.6	1027.2	1024.9	1020.4	1018.1
42.5°	828.6	833.2	846.9	856.0	853.7	876.6	878.8	888.0	894.8	890.3	892.5
45°	630.0	643.7	662.0	671.1	682.5	712.2	728.2	746.4	762.4	771.6	769.3
47.5°	454.3	470.2	490.8	504.5	525.0	561.5	602.6	625.5	648.3	659.7	671.1
50°	328.7	344.7	369.8	390.3	404.0	454.3	497.6	527.3	552.4	568.4	579.8
52.5°	230.6	248.8	276.2	294.5	315.0	362.9	413.2	447.4	474.8	495.3	506.8
55°	159.8	180.3	205.4	223.7	246.5	296.8	344.7	381.2	410.9	429.1	442.8
57.5°	111.9	130.1	155.2	171.2	194.0	242.0	289.9	326.4	356.1	374.4	390.3
60°	75.3	93.6	118.7	134.7	152.9	200.9	244.2	283.1	310.4	328.7	344.7
62.5°	52.5	68.5	93.6	109.6	125.5	166.6	207.7	242.0	269.4	289.9	303.6
65°	41.1	54.8	75.3	89.0	105.0	139.2	173.5	203.2	230.6	251.1	260.2
67.5°	29.7	43.4	59.4	70.8	82.2	111.9	141.5	164.4	189.5	205.4	216.9
70°	20.5	29.7	43.4	52.5	61.6	84.5	107.3	127.8	146.1	157.5	166.6
72.5°	16.0	20.5	29.7	36.5	43.4	59.4	77.6	93.6	107.3	116.4	125.5
75°	9.1	13.7	20.5	25.1	29.7	41.1	52.5	63.9	73.0	79.9	84.5
77.5°	4.6	6.8	11.4	13.7	18.3	25.1	34.2	41.1	47.9	52.5	57.1
80°	4.6	4.6	6.8	6.8	9.1	13.7	18.3	22.8	27.4	32.0	34.2
82.5°	2.3	2.3	4.6	4.6	4.6	6.8	9.1	13.7	16.0	18.3	20.5
85°	2.3	2.3	2.3	2.3	2.3	4.6	4.6	6.8	9.1	11.4	11.4
87.5°	0.0	0.0	2.3	2.3	2.3	2.3	2.3	4.6	4.6	4.6	6.8
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: P252602

CATALOG NUMBER: LD6B40D010 EU6B30509027 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5	1974.5
2.5°	1967.7	1972.3	1970.0	1974.5	1967.7	1965.4	1970.0	1963.1
5°	1942.6	1944.9	1942.6	1942.6	1938.0	1933.4	1938.0	1931.2
7.5°	1903.8	1903.8	1896.9	1896.9	1887.8	1883.2	1883.2	1880.9
10°	1871.8	1865.0	1858.1	1860.4	1846.7	1842.1	1839.9	1837.6
12.5°	1855.8	1851.3	1839.9	1839.9	1826.2	1821.6	1819.3	1817.0
15°	1837.6	1828.4	1819.3	1817.0	1805.6	1801.1	1798.8	1794.2
17.5°	1805.6	1798.8	1787.4	1787.4	1775.9	1773.7	1769.1	1766.8
20°	1771.4	1762.2	1753.1	1753.1	1739.4	1739.4	1732.6	1734.9
22.5°	1723.4	1716.6	1707.5	1707.5	1696.0	1693.8	1686.9	1684.6
25°	1666.4	1657.2	1650.4	1648.1	1639.0	1634.4	1632.1	1627.6
27.5°	1591.0	1584.2	1577.3	1572.8	1561.4	1559.1	1552.2	1554.5
30°	1497.5	1492.9	1490.6	1486.0	1472.3	1467.8	1467.8	1460.9
32.5°	1394.7	1387.9	1383.3	1376.5	1365.1	1362.8	1355.9	1358.2
35°	1269.2	1260.1	1253.2	1255.5	1241.8	1239.5	1234.9	1237.2
37.5°	1139.1	1129.9	1120.8	1118.5	1107.1	1107.1	1100.3	1100.3
40°	1004.4	995.3	990.7	990.7	977.0	979.3	972.4	970.1
42.5°	883.4	874.3	872.0	869.7	862.9	860.6	853.7	856.0
45°	769.3	767.0	767.0	762.4	755.6	753.3	755.6	755.6
47.5°	668.8	671.1	668.8	668.8	664.3	668.8	664.3	666.5
50°	584.4	588.9	588.9	588.9	586.7	588.9	588.9	591.2
52.5°	513.6	520.5	518.2	520.5	518.2	522.7	520.5	522.7
55°	452.0	456.5	458.8	461.1	461.1	461.1	461.1	461.1
57.5°	394.9	401.8	404.0	406.3	406.3	410.9	406.3	406.3
60°	349.3	356.1	358.4	360.7	360.7	362.9	358.4	360.7
62.5°	308.2	315.0	315.0	317.3	317.3	317.3	312.7	315.0
65°	267.1	269.4	271.6	271.6	269.4	269.4	267.1	269.4
67.5°	221.4	223.7	221.4	221.4	219.1	219.1	214.6	216.9
70°	171.2	171.2	173.5	171.2	168.9	171.2	168.9	166.6
72.5°	127.8	127.8	127.8	125.5	125.5	123.3	125.5	125.5
75°	86.7	86.7	89.0	89.0	89.0	89.0	86.7	86.7
77.5°	57.1	57.1	57.1	57.1	59.4	57.1	57.1	57.1
80°	36.5	36.5	38.8	38.8	36.5	36.5	36.5	36.5
82.5°	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8
85°	13.7	13.7	13.7	13.7	11.4	11.4	11.4	11.4
87.5°	6.8	6.8	6.8	6.8	6.8	6.8	4.6	4.6
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)