

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: P252398

Luminaire Tested: **LD6B40D010 EU6B30509050 6LBLWW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252398  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-5)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B40D010 EU6B30509050 6LBLWW1LI  
Description: PORTFOLIO 6 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3292.0 lumens  
Efficiency: N/A  
Efficacy: 76.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.02 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

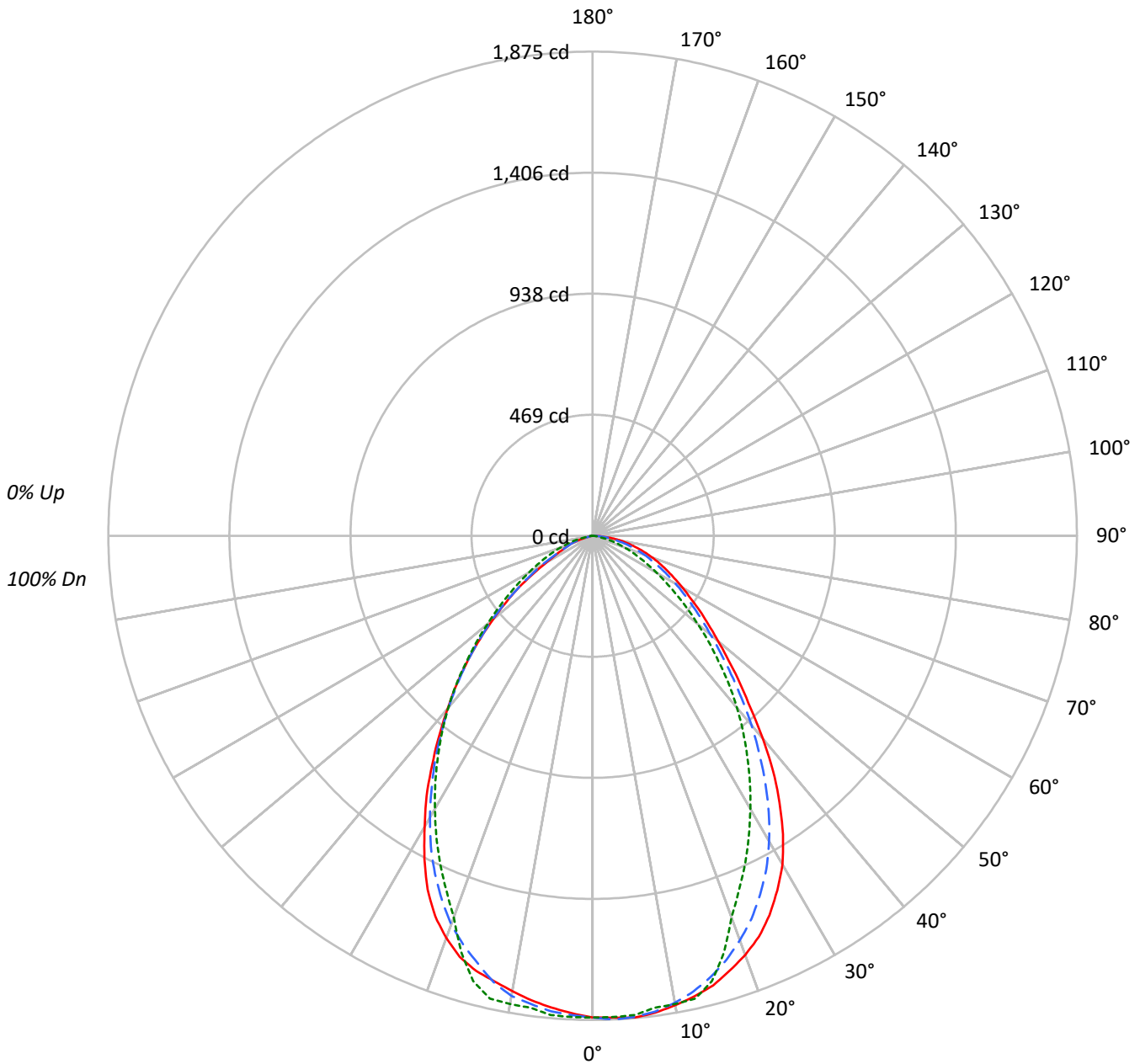
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77				77
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68				68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60				60
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54				54
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48				48
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44				44
8	67	55	47	42	66	54	47	42	53	46	42	52	46	42	51	45	41	40				40
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36				36
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33				33

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

	0°	90°	180°
0°	121693	121693	121693
5°	122630	122001	120095
10°	122285	121967	118596
15°	121731	120583	117807
20°	119915	109154	115035
25°	116659	100614	108813
30°	110770	91975	97994
35°	100519	83156	86239
40°	87269	74069	74273
45°	74430	63699	63026
50°	64420	53844	50890
55°	57588	44917	39401
60°	52467	37292	26553
65°	48982	30658	19821
70°	46677	24950	16633
75°	43961	17721	5495
80°	41854	9092	1803
85°	34433	5464	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.1	5.4
10°-20°	492.7	15.0
20°-30°	680.0	20.7
30°-40°	692.0	21.0
40°-50°	556.1	16.9
50°-60°	369.8	11.2
60°-70°	210.7	6.4
70°-80°	94.6	2.9
80°-90°	19.9	0.6
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°	1348.8	41.0
0°-40°	2040.8	62.0
0°-60°	2966.7	90.1
0°-90°	3292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3292.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1865	1865	1865	1865	1865	
5°	1872	1870	1863	1848	1834	178
15°	1802	1768	1785	1715	1744	507
25°	1621	1533	1398	1444	1512	743
35°	1262	1165	1044	1063	1083	784
45°	807	758	690	683	683	626
55°	506	472	395	351	346	455
65°	317	283	199	128	128	316
75°	174	145	70	29	22	186
85°	46	32	7	2	0	55
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°	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3
2.5°	1867.7	1877.4	1875.0	1872.5	1875.0	1872.5	1867.7	1867.7	1862.9	1862.9	1875.0
5°	1872.5	1877.4	1875.0	1872.5	1872.5	1875.0	1865.3	1865.3	1860.4	1858.0	1870.1
7.5°	1862.9	1870.1	1865.3	1865.3	1862.9	1865.3	1855.6	1855.6	1848.3	1845.9	1858.0
10°	1845.9	1855.6	1850.7	1850.7	1850.7	1845.9	1841.1	1838.6	1831.4	1828.9	1836.2
12.5°	1826.5	1833.8	1831.4	1826.5	1826.5	1826.5	1816.8	1814.4	1804.7	1799.9	1807.1
15°	1802.3	1807.1	1804.7	1802.3	1797.4	1797.4	1787.8	1782.9	1773.2	1763.5	1768.4
17.5°	1766.0	1773.2	1768.4	1766.0	1758.7	1758.7	1749.0	1744.2	1729.6	1719.9	1722.4
20°	1727.2	1729.6	1727.2	1722.4	1715.1	1712.7	1703.0	1693.3	1681.2	1669.1	1666.6
22.5°	1681.2	1683.6	1676.3	1671.5	1664.2	1661.8	1649.7	1642.4	1623.0	1608.5	1606.1
25°	1620.6	1623.0	1623.0	1610.9	1606.1	1601.2	1589.1	1577.0	1560.0	1540.7	1533.4
27.5°	1547.9	1555.2	1550.4	1538.2	1528.6	1526.1	1514.0	1504.3	1482.5	1465.6	1455.9
30°	1470.4	1468.0	1465.6	1458.3	1443.8	1441.3	1429.2	1417.1	1400.2	1378.4	1366.3
32.5°	1371.1	1371.1	1368.7	1361.4	1346.9	1342.0	1332.3	1317.8	1298.4	1281.5	1269.4
35°	1262.1	1264.5	1262.1	1247.6	1237.9	1233.0	1228.2	1211.2	1194.3	1174.9	1165.2
37.5°	1148.2	1141.0	1143.4	1131.3	1119.2	1124.0	1109.5	1102.2	1082.8	1068.3	1058.6
40°	1024.7	1029.5	1019.8	1015.0	1007.7	1000.5	1000.5	988.4	978.7	961.7	956.9
42.5°	903.6	910.8	908.4	903.6	893.9	896.3	884.2	879.3	867.2	860.0	852.7
45°	806.7	806.7	806.7	801.8	799.4	794.6	787.3	780.0	772.8	763.1	758.2
47.5°	712.2	712.2	714.6	709.8	704.9	702.5	697.7	697.7	685.5	675.9	671.0
50°	634.7	634.7	634.7	629.8	625.0	625.0	620.1	615.3	608.0	600.8	595.9
52.5°	564.4	564.4	564.4	559.6	557.2	554.7	552.3	549.9	540.2	535.4	530.5
55°	506.3	503.9	503.9	501.4	496.6	496.6	494.2	489.3	482.1	474.8	472.4
57.5°	448.2	450.6	448.2	448.2	443.3	443.3	438.5	436.0	428.8	423.9	419.1
60°	402.1	402.1	402.1	399.7	394.9	397.3	392.4	390.0	382.7	375.5	370.6
62.5°	356.1	358.5	358.5	356.1	351.3	351.3	348.8	346.4	339.1	331.9	324.6
65°	317.3	317.3	317.3	314.9	312.5	312.5	310.1	307.6	300.4	290.7	283.4
67.5°	281.0	278.6	278.6	278.6	276.2	273.7	271.3	268.9	261.6	254.4	244.7
70°	244.7	244.7	244.7	242.2	237.4	239.8	237.4	235.0	227.7	220.4	213.2
72.5°	210.8	210.8	208.3	205.9	205.9	203.5	203.5	201.1	193.8	184.1	176.8
75°	174.4	174.4	174.4	174.4	169.6	172.0	167.1	164.7	159.9	152.6	145.3
77.5°	142.9	142.9	142.9	140.5	138.1	138.1	135.7	133.2	126.0	121.1	111.4
80°	111.4	111.4	111.4	111.4	109.0	106.6	104.2	101.7	96.9	89.6	82.4
82.5°	82.4	82.4	79.9	79.9	79.9	77.5	75.1	72.7	67.8	63.0	58.1
85°	46.0	48.4	48.4	43.6	46.0	43.6	43.6	38.8	38.8	33.9	31.5
87.5°	17.0	14.5	14.5	14.5	14.5	14.5	14.5	12.1	12.1	12.1	9.7
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°	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3
2.5°	1865.3	1862.9	1872.5	1872.5	1858.0	1865.3	1867.7	1862.9	1862.9	1865.3	1858.0
5°	1860.4	1855.6	1865.3	1867.7	1853.2	1860.4	1862.9	1858.0	1860.4	1862.9	1853.2
7.5°	1843.5	1843.5	1850.7	1853.2	1838.6	1845.9	1845.9	1841.1	1843.5	1843.5	1836.2
10°	1826.5	1819.2	1826.5	1826.5	1814.4	1816.8	1821.7	1819.2	1828.9	1841.1	1841.1
12.5°	1795.0	1787.8	1799.9	1799.9	1792.6	1802.3	1814.4	1821.7	1831.4	1836.2	1821.7
15°	1756.3	1758.7	1780.5	1797.4	1790.2	1804.7	1816.8	1812.0	1799.9	1785.3	1763.5
17.5°	1705.4	1698.1	1717.5	1727.2	1717.5	1722.4	1732.0	1722.4	1703.0	1690.9	1661.8
20°	1647.3	1627.9	1627.9	1623.0	1606.1	1606.1	1603.7	1586.7	1579.4	1572.2	1560.0
22.5°	1581.8	1560.0	1552.8	1538.2	1523.7	1521.3	1514.0	1497.1	1487.4	1482.5	1468.0
25°	1506.8	1487.4	1475.3	1460.7	1438.9	1434.1	1426.8	1409.9	1405.0	1397.7	1385.6
27.5°	1429.2	1405.0	1388.1	1373.5	1354.1	1351.7	1337.2	1325.1	1315.4	1310.5	1300.8
30°	1339.6	1313.0	1300.8	1281.5	1266.9	1262.1	1250.0	1233.0	1225.8	1220.9	1213.6
32.5°	1240.3	1218.5	1206.4	1189.4	1170.0	1172.5	1157.9	1143.4	1138.5	1133.7	1126.4
35°	1143.4	1121.6	1107.1	1092.5	1080.4	1075.6	1065.9	1053.8	1046.5	1044.1	1039.2
37.5°	1036.8	1019.8	1007.7	993.2	983.5	978.7	973.8	961.7	956.9	956.9	947.2
40°	932.6	918.1	908.4	901.1	889.0	886.6	881.8	874.5	872.1	869.7	862.4
42.5°	838.2	818.8	811.5	806.7	799.4	794.6	792.1	787.3	784.9	782.4	775.2
45°	748.5	731.6	724.3	719.5	712.2	709.8	707.4	700.1	695.2	690.4	688.0
47.5°	661.3	649.2	646.8	634.7	629.8	625.0	620.1	615.3	612.9	610.5	600.8
50°	586.2	579.0	566.8	559.6	554.7	552.3	542.6	535.4	532.9	530.5	523.2
52.5°	518.4	508.7	501.4	489.3	486.9	482.1	477.2	467.5	462.7	460.3	453.0
55°	457.8	450.6	440.9	431.2	423.9	421.5	414.2	404.5	399.7	394.9	390.0
57.5°	407.0	394.9	385.2	375.5	370.6	363.4	356.1	351.3	344.0	336.7	329.5
60°	358.5	348.8	336.7	327.0	322.2	317.3	307.6	300.4	293.1	285.8	278.6
62.5°	312.5	302.8	290.7	281.0	276.2	271.3	261.6	254.4	247.1	239.8	230.1
65°	271.3	261.6	251.9	242.2	237.4	232.6	222.9	213.2	205.9	198.6	188.9
67.5°	237.4	225.3	215.6	205.9	201.1	196.2	186.5	179.3	169.6	162.3	152.6
70°	201.1	191.4	184.1	174.4	169.6	164.7	155.0	145.3	138.1	130.8	121.1
72.5°	169.6	157.5	150.2	140.5	135.7	133.2	123.5	116.3	109.0	99.3	92.1
75°	135.7	126.0	116.3	109.0	104.2	101.7	92.1	84.8	77.5	70.3	63.0
77.5°	104.2	96.9	87.2	79.9	75.1	72.7	63.0	55.7	48.4	43.6	36.3
80°	77.5	67.8	63.0	55.7	53.3	48.4	43.6	36.3	31.5	24.2	19.4
82.5°	53.3	46.0	41.2	36.3	33.9	31.5	26.6	21.8	17.0	14.5	12.1
85°	29.1	24.2	21.8	19.4	17.0	17.0	14.5	12.1	9.7	7.3	4.8
87.5°	9.7	7.3	7.3	7.3	7.3	4.8	4.8	4.8	2.4	2.4	2.4
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°	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3
2.5°	1862.9	1862.9	1862.9	1860.4	1860.4	1860.4	1858.0	1867.7	1858.0	1855.6	1862.9
5°	1860.4	1855.6	1855.6	1855.6	1855.6	1853.2	1850.7	1855.6	1848.3	1845.9	1845.9
7.5°	1845.9	1843.5	1843.5	1841.1	1838.6	1836.2	1833.8	1836.2	1828.9	1826.5	1826.5
10°	1848.3	1843.5	1843.5	1836.2	1831.4	1824.1	1816.8	1819.2	1809.6	1802.3	1802.3
12.5°	1819.2	1807.1	1799.9	1792.6	1787.8	1785.3	1775.6	1780.5	1770.8	1768.4	1768.4
15°	1753.8	1739.3	1727.2	1722.4	1722.4	1717.5	1710.2	1719.9	1715.1	1717.5	1729.6
17.5°	1652.1	1644.8	1637.6	1635.1	1637.6	1642.4	1647.3	1661.8	1661.8	1669.1	1681.2
20°	1562.5	1557.6	1562.5	1562.5	1564.9	1574.6	1584.3	1596.4	1601.2	1608.5	1625.5
22.5°	1475.3	1475.3	1480.1	1487.4	1485.0	1501.9	1504.3	1526.1	1526.1	1540.7	1555.2
25°	1390.5	1390.5	1395.3	1397.7	1402.6	1412.3	1422.0	1438.9	1443.8	1458.3	1470.4
27.5°	1308.1	1305.7	1305.7	1308.1	1313.0	1325.1	1329.9	1349.3	1356.6	1366.3	1378.4
30°	1216.1	1213.6	1218.5	1223.3	1220.9	1233.0	1240.3	1254.8	1259.7	1269.4	1279.0
32.5°	1128.9	1128.9	1128.9	1133.7	1133.7	1143.4	1143.4	1160.3	1160.3	1167.6	1177.3
35°	1039.2	1039.2	1041.6	1044.1	1046.5	1048.9	1051.3	1061.0	1063.4	1065.9	1070.7
37.5°	954.4	952.0	954.4	954.4	949.6	959.3	959.3	969.0	961.7	969.0	971.4
40°	867.2	867.2	864.8	864.8	864.8	869.7	864.8	872.1	867.2	872.1	869.7
42.5°	777.6	777.6	772.8	777.6	775.2	775.2	775.2	780.0	772.8	777.6	780.0
45°	688.0	685.5	685.5	683.1	683.1	683.1	685.5	685.5	683.1	688.0	688.0
47.5°	600.8	598.3	598.3	598.3	598.3	600.8	593.5	598.3	593.5	593.5	593.5
50°	525.7	523.2	520.8	518.4	516.0	516.0	513.6	513.6	508.7	506.3	503.9
52.5°	453.0	450.6	445.7	445.7	443.3	440.9	433.6	433.6	426.3	423.9	423.9
55°	387.6	380.3	377.9	373.1	373.1	368.2	363.4	358.5	351.3	346.4	346.4
57.5°	327.0	319.8	314.9	312.5	310.1	305.2	295.5	293.1	283.4	281.0	278.6
60°	273.7	266.5	259.2	254.4	251.9	244.7	235.0	230.1	225.3	218.0	210.8
62.5°	222.9	215.6	205.9	203.5	198.6	191.4	184.1	176.8	172.0	164.7	159.9
65°	179.3	172.0	164.7	159.9	155.0	147.8	140.5	133.2	128.4	126.0	123.5
67.5°	145.3	135.7	128.4	126.0	121.1	116.3	109.0	106.6	101.7	101.7	101.7
70°	113.9	106.6	99.3	96.9	94.5	89.6	84.8	84.8	84.8	84.8	84.8
72.5°	84.8	79.9	72.7	70.3	67.8	65.4	60.6	63.0	60.6	60.6	60.6
75°	53.3	48.4	43.6	41.2	38.8	36.3	33.9	31.5	29.1	26.6	26.6
77.5°	29.1	24.2	21.8	19.4	19.4	17.0	14.5	14.5	12.1	12.1	12.1
80°	17.0	14.5	12.1	9.7	9.7	7.3	7.3	7.3	7.3	4.8	4.8
82.5°	9.7	7.3	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4
85°	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.0
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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: P252398

CATALOG NUMBER: LD6B40D010 EU6B30509050 6LBLWW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3	1865.3
2.5°	1850.7	1858.0	1850.7	1858.0	1858.0	1858.0	1858.0	1850.7
5°	1838.6	1843.5	1836.2	1841.1	1843.5	1841.1	1841.1	1833.8
7.5°	1816.8	1821.7	1814.4	1821.7	1824.1	1821.7	1819.2	1814.4
10°	1795.0	1797.4	1790.2	1795.0	1799.9	1799.9	1797.4	1790.2
12.5°	1761.1	1768.4	1761.1	1766.0	1770.8	1773.2	1773.2	1766.0
15°	1722.4	1734.5	1729.6	1736.9	1744.2	1746.6	1746.6	1744.2
17.5°	1683.6	1695.7	1688.4	1700.5	1707.8	1712.7	1715.1	1710.2
20°	1627.9	1642.4	1637.6	1647.3	1656.9	1664.2	1664.2	1656.9
22.5°	1555.2	1574.6	1572.2	1579.4	1591.5	1594.0	1598.8	1594.0
25°	1475.3	1489.8	1487.4	1494.6	1509.2	1509.2	1511.6	1511.6
27.5°	1383.2	1397.7	1395.3	1400.2	1409.9	1412.3	1414.7	1409.9
30°	1283.9	1291.2	1291.2	1298.4	1305.7	1308.1	1308.1	1300.8
32.5°	1174.9	1184.6	1189.4	1187.0	1194.3	1199.1	1196.7	1196.7
35°	1075.6	1078.0	1080.4	1082.8	1085.3	1090.1	1085.3	1082.8
37.5°	969.0	976.2	971.4	976.2	981.1	978.7	976.2	976.2
40°	872.1	874.5	869.7	874.5	876.9	876.9	876.9	872.1
42.5°	775.2	780.0	775.2	780.0	780.0	780.0	780.0	777.6
45°	678.3	683.1	683.1	685.5	685.5	683.1	683.1	683.1
47.5°	588.7	593.5	588.7	593.5	595.9	591.1	591.1	591.1
50°	503.9	501.4	501.4	503.9	503.9	503.9	503.9	501.4
52.5°	416.7	419.1	419.1	419.1	421.5	419.1	421.5	421.5
55°	341.6	341.6	341.6	344.0	341.6	341.6	344.0	346.4
57.5°	273.7	271.3	268.9	268.9	271.3	268.9	268.9	268.9
60°	210.8	208.3	205.9	205.9	205.9	205.9	205.9	203.5
62.5°	157.5	157.5	157.5	159.9	159.9	159.9	159.9	162.3
65°	126.0	126.0	126.0	126.0	126.0	126.0	126.0	128.4
67.5°	101.7	101.7	101.7	104.2	104.2	104.2	104.2	104.2
70°	84.8	84.8	87.2	84.8	87.2	87.2	87.2	87.2
72.5°	58.1	58.1	58.1	58.1	58.1	55.7	58.1	55.7
75°	24.2	24.2	24.2	24.2	24.2	24.2	24.2	21.8
77.5°	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	2.4	2.4	2.4	2.4	0.0	0.0	0.0
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)