

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: P252291

Luminaire Tested: **LD6B40D010 EU6B30509030 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252291  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B40D010 EU6B30509030 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3298.0 lumens  
Efficiency: N/A  
Efficacy: 76.7 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

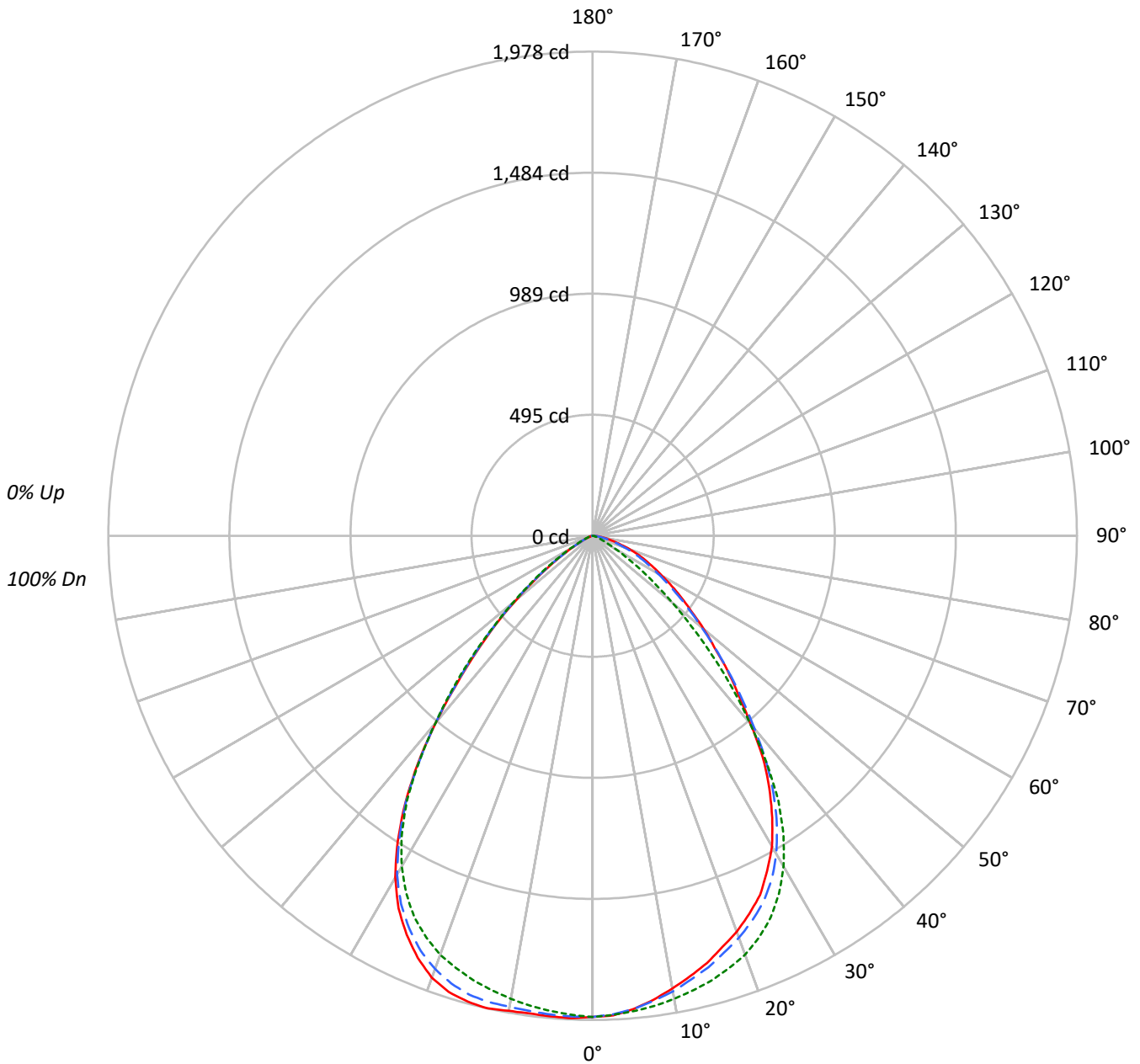
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40																			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37																			

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

	0°	90°	180°
0°	128250	128250	128250
5°	127031	127653	129054
10°	124412	127241	130546
15°	122028	126999	133098
20°	119506	126428	133350
25°	116558	123908	129372
30°	110356	117505	121445
35°	100216	105321	106269
40°	85532	85123	84723
45°	71846	63745	61771
50°	60005	43136	40964
55°	50502	26468	24034
60°	42746	13935	12083
65°	37019	7333	5866
70°	30787	4521	3166
75°	22737	3000	1790
80°	17846	1766	902
85°	14222	1797	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.3	5.6
10°-20°	530.5	16.1
20°-30°	783.3	23.8
30°-40°	807.3	24.5
40°-50°	557.6	16.9
50°-60°	274.8	8.3
60°-70°	111.4	3.4
70°-80°	39.7	1.2
80°-90°	8.2	0.2
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°	1499.1	45.5
0°-40°	2306.3	69.9
0°-60°	3138.8	95.2
0°-90°	3298.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3298.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1966	1966	1966	1966	1966	
5°	1940	1940	1949	1963	1971	183
15°	1807	1826	1880	1942	1971	509
25°	1619	1650	1721	1771	1797	740
35°	1258	1289	1322	1330	1334	780
45°	779	784	691	681	670	602
55°	444	427	233	218	211	401
65°	240	216	48	38	38	238
75°	90	76	12	7	7	101
85°	19	14	2	0	0	23
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°	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8
2.5°	1961.1	1953.9	1958.7	1949.2	1961.1	1949.2	1951.6	1953.9	1951.6	1953.9	1956.3
5°	1939.7	1932.6	1939.7	1927.8	1939.7	1932.6	1932.6	1934.9	1934.9	1937.3	1939.7
7.5°	1911.2	1904.1	1911.2	1899.3	1913.6	1906.5	1906.5	1911.2	1908.8	1911.2	1916.0
10°	1878.0	1868.5	1875.6	1868.5	1882.7	1873.2	1878.0	1878.0	1878.0	1885.1	1889.8
12.5°	1842.4	1832.9	1842.4	1830.5	1844.7	1837.6	1840.0	1847.1	1849.5	1854.2	1856.6
15°	1806.7	1794.9	1799.6	1792.5	1806.7	1799.6	1802.0	1811.5	1811.5	1818.6	1825.7
17.5°	1761.6	1752.1	1761.6	1752.1	1764.0	1759.3	1764.0	1771.1	1771.1	1778.3	1785.4
20°	1721.3	1711.8	1718.9	1711.8	1726.0	1718.9	1721.3	1730.8	1733.1	1740.3	1747.4
22.5°	1671.4	1664.3	1669.0	1661.9	1676.2	1671.4	1673.8	1683.3	1685.7	1690.4	1702.3
25°	1619.2	1604.9	1612.1	1607.3	1621.6	1614.4	1619.2	1628.7	1633.4	1640.5	1650.0
27.5°	1543.2	1536.1	1540.8	1540.8	1552.7	1545.6	1548.0	1557.5	1564.6	1571.7	1583.6
30°	1464.9	1453.0	1457.7	1460.1	1469.6	1464.9	1469.6	1479.1	1481.5	1491.0	1500.5
32.5°	1365.1	1360.4	1369.9	1365.1	1369.9	1369.9	1372.3	1379.4	1384.1	1388.9	1400.8
35°	1258.3	1248.8	1258.3	1253.6	1265.4	1258.3	1265.4	1272.6	1272.6	1282.1	1289.2
37.5°	1142.0	1130.1	1134.9	1134.9	1139.6	1137.2	1137.2	1149.1	1151.5	1158.6	1165.7
40°	1004.3	999.5	1009.0	1006.6	1009.0	1009.0	1011.4	1018.5	1023.3	1025.6	1028.0
42.5°	880.8	883.2	885.6	885.6	885.6	885.6	885.6	895.1	892.7	899.8	902.2
45°	778.7	769.2	774.0	771.6	778.7	771.6	778.7	785.8	781.1	788.2	783.5
47.5°	674.3	674.3	674.3	671.9	676.6	674.3	679.0	681.4	681.4	681.4	679.0
50°	591.2	584.0	586.4	586.4	588.8	586.4	591.2	593.5	593.5	588.8	579.3
52.5°	510.4	508.1	508.1	512.8	512.8	510.4	510.4	510.4	510.4	503.3	498.6
55°	444.0	439.2	441.6	441.6	441.6	441.6	444.0	441.6	441.6	434.5	427.4
57.5°	384.6	379.9	379.9	379.9	382.2	379.9	379.9	379.9	377.5	370.4	360.9
60°	327.6	325.3	327.6	327.6	330.0	327.6	327.6	327.6	322.9	315.8	306.3
62.5°	280.2	280.2	280.2	282.5	282.5	280.2	280.2	277.8	275.4	265.9	256.4
65°	239.8	237.4	239.8	239.8	242.2	242.2	239.8	237.4	235.0	225.5	216.0
67.5°	199.4	197.1	199.4	199.4	201.8	199.4	199.4	199.4	192.3	187.6	178.1
70°	161.4	159.1	159.1	159.1	161.4	156.7	159.1	159.1	154.3	147.2	137.7
72.5°	123.5	123.5	123.5	123.5	123.5	123.5	121.1	121.1	116.3	109.2	104.5
75°	90.2	90.2	92.6	92.6	90.2	90.2	90.2	87.8	85.5	80.7	76.0
77.5°	66.5	66.5	66.5	66.5	64.1	64.1	64.1	61.7	59.4	57.0	52.2
80°	47.5	47.5	47.5	45.1	47.5	45.1	45.1	45.1	40.4	38.0	35.6
82.5°	33.2	30.9	30.9	30.9	30.9	30.9	30.9	28.5	28.5	26.1	23.7
85°	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	16.6	14.2	14.2
87.5°	9.5	11.9	11.9	11.9	11.9	11.9	11.9	9.5	9.5	9.5	7.1
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°	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8
2.5°	1956.3	1956.3	1961.1	1953.9	1965.8	1958.7	1956.3	1968.2	1961.1	1958.7	1963.4
5°	1939.7	1942.1	1944.4	1939.7	1951.6	1944.4	1944.4	1956.3	1951.6	1949.2	1956.3
7.5°	1918.3	1920.7	1925.5	1923.1	1932.6	1927.8	1930.2	1942.1	1937.3	1937.3	1944.4
10°	1892.2	1897.0	1901.7	1901.7	1913.6	1908.8	1908.8	1923.1	1918.3	1920.7	1930.2
12.5°	1861.3	1868.5	1875.6	1878.0	1889.8	1882.7	1885.1	1901.7	1899.3	1901.7	1911.2
15°	1828.1	1837.6	1844.7	1844.7	1859.0	1851.9	1859.0	1875.6	1870.8	1880.3	1892.2
17.5°	1790.1	1799.6	1809.1	1811.5	1825.7	1821.0	1830.5	1847.1	1847.1	1851.9	1866.1
20°	1754.5	1766.4	1771.1	1778.3	1792.5	1790.1	1794.9	1813.9	1813.9	1821.0	1835.2
22.5°	1707.0	1718.9	1728.4	1735.5	1747.4	1747.4	1754.5	1771.1	1771.1	1775.9	1790.1
25°	1654.8	1669.0	1676.2	1683.3	1695.2	1692.8	1699.9	1714.1	1716.5	1721.3	1735.5
27.5°	1588.3	1600.2	1609.7	1614.4	1631.1	1621.6	1628.7	1645.3	1642.9	1647.7	1659.5
30°	1505.2	1517.1	1526.6	1526.6	1540.8	1540.8	1548.0	1555.1	1555.1	1559.8	1569.3
32.5°	1407.9	1422.1	1422.1	1429.2	1438.7	1429.2	1438.7	1448.2	1443.5	1450.6	1457.7
35°	1296.3	1303.4	1305.8	1305.8	1312.9	1310.5	1308.2	1315.3	1310.5	1322.4	1329.5
37.5°	1161.0	1170.5	1165.7	1170.5	1168.1	1161.0	1161.0	1172.8	1163.3	1165.7	1172.8
40°	1030.4	1030.4	1028.0	1016.1	1018.5	1011.4	1009.0	1011.4	1001.9	999.5	1009.0
42.5°	895.1	892.7	885.6	868.9	871.3	859.4	850.0	850.0	845.2	842.8	845.2
45°	774.0	766.9	755.0	736.0	731.2	721.7	702.8	698.0	690.9	690.9	693.3
47.5°	662.4	652.9	633.9	612.5	600.7	588.8	569.8	562.7	550.8	546.1	550.8
50°	569.8	553.2	529.4	498.6	486.7	472.5	453.5	441.6	429.7	425.0	422.6
52.5°	484.3	460.6	436.8	398.9	389.4	375.1	349.0	337.1	325.3	315.8	315.8
55°	410.7	389.4	356.1	320.5	306.3	292.0	265.9	249.3	237.4	232.7	227.9
57.5°	344.3	320.5	289.6	251.7	237.4	223.2	197.1	180.4	168.6	161.4	156.7
60°	289.6	263.5	232.7	199.4	182.8	168.6	142.5	125.8	114.0	106.8	102.1
62.5°	237.4	216.0	185.2	154.3	140.1	125.8	104.5	87.8	76.0	71.2	64.1
65°	199.4	178.1	149.6	123.5	111.6	97.3	78.3	64.1	54.6	47.5	42.7
67.5°	161.4	144.8	121.1	97.3	85.5	76.0	59.4	47.5	38.0	33.2	30.9
70°	128.2	111.6	92.6	73.6	66.5	57.0	45.1	33.2	28.5	23.7	21.4
72.5°	95.0	83.1	68.9	54.6	47.5	42.7	30.9	26.1	19.0	16.6	14.2
75°	68.9	59.4	49.9	38.0	33.2	30.9	23.7	16.6	14.2	11.9	9.5
77.5°	47.5	42.7	33.2	26.1	23.7	21.4	16.6	11.9	9.5	7.1	7.1
80°	30.9	26.1	21.4	16.6	16.6	14.2	9.5	7.1	7.1	4.7	4.7
82.5°	19.0	16.6	14.2	11.9	9.5	9.5	7.1	4.7	4.7	2.4	2.4
85°	11.9	9.5	7.1	7.1	4.7	4.7	4.7	2.4	2.4	2.4	2.4
87.5°	4.7	4.7	4.7	2.4	2.4	2.4	2.4	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°	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8
2.5°	1963.4	1963.4	1968.2	1961.1	1965.8	1965.8	1970.6	1961.1	1965.8	1968.2	1972.9
5°	1953.9	1956.3	1961.1	1958.7	1961.1	1961.1	1965.8	1953.9	1963.4	1963.4	1970.6
7.5°	1944.4	1944.4	1949.2	1946.8	1951.6	1953.9	1958.7	1949.2	1958.7	1958.7	1965.8
10°	1932.6	1932.6	1939.7	1937.3	1944.4	1946.8	1953.9	1944.4	1953.9	1956.3	1963.4
12.5°	1916.0	1918.3	1925.5	1925.5	1932.6	1937.3	1944.4	1939.7	1951.6	1953.9	1963.4
15°	1897.0	1901.7	1911.2	1908.8	1916.0	1923.1	1932.6	1925.5	1942.1	1946.8	1956.3
17.5°	1873.2	1878.0	1885.1	1885.1	1892.2	1897.0	1908.8	1904.1	1918.3	1920.7	1932.6
20°	1837.6	1844.7	1854.2	1851.9	1859.0	1863.7	1873.2	1868.5	1882.7	1887.5	1899.3
22.5°	1794.9	1799.6	1806.7	1806.7	1813.9	1818.6	1828.1	1821.0	1835.2	1837.6	1847.1
25°	1737.9	1742.6	1747.4	1749.8	1756.9	1759.3	1764.0	1759.3	1771.1	1773.5	1785.4
27.5°	1664.3	1666.7	1673.8	1673.8	1678.5	1680.9	1688.0	1678.5	1695.2	1695.2	1702.3
30°	1576.4	1574.1	1583.6	1578.8	1583.6	1583.6	1590.7	1585.9	1597.8	1593.1	1600.2
32.5°	1460.1	1464.9	1464.9	1460.1	1469.6	1467.2	1467.2	1462.5	1469.6	1472.0	1476.7
35°	1324.8	1331.9	1331.9	1334.3	1336.7	1329.5	1331.9	1317.7	1329.5	1331.9	1334.3
37.5°	1177.6	1170.5	1175.2	1168.1	1180.0	1165.7	1165.7	1156.2	1165.7	1165.7	1168.1
40°	1009.0	1006.6	1011.4	1006.6	1004.3	1001.9	997.2	990.0	999.5	994.8	1001.9
42.5°	850.0	847.6	847.6	842.8	840.5	840.5	835.7	831.0	828.6	828.6	840.5
45°	686.1	690.9	686.1	683.8	688.5	683.8	686.1	676.6	681.4	676.6	681.4
47.5°	548.4	550.8	546.1	541.3	548.4	541.3	541.3	534.2	543.7	543.7	538.9
50°	425.0	422.6	417.9	422.6	420.2	420.2	420.2	413.1	417.9	410.7	415.5
52.5°	313.4	311.0	311.0	308.6	311.0	308.6	308.6	306.3	306.3	303.9	306.3
55°	227.9	225.5	220.8	220.8	220.8	223.2	220.8	218.4	218.4	216.0	218.4
57.5°	154.3	149.6	149.6	149.6	149.6	147.2	147.2	144.8	147.2	144.8	147.2
60°	99.7	99.7	95.0	95.0	95.0	95.0	95.0	92.6	95.0	95.0	95.0
62.5°	61.7	61.7	59.4	57.0	59.4	57.0	57.0	57.0	59.4	57.0	59.4
65°	40.4	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
67.5°	28.5	26.1	26.1	26.1	26.1	26.1	26.1	23.7	26.1	26.1	26.1
70°	19.0	19.0	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
72.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
75°	9.5	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
77.5°	7.1	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	4.7	4.7	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	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	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: P252291

CATALOG NUMBER: LD6B40D010 EU6B30509030 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8	1965.8
2.5°	1965.8	1968.2	1963.4	1965.8	1961.1	1965.8	1968.2	1972.9
5°	1961.1	1963.4	1958.7	1963.4	1958.7	1963.4	1965.8	1970.6
7.5°	1956.3	1961.1	1956.3	1961.1	1956.3	1961.1	1963.4	1968.2
10°	1956.3	1963.4	1958.7	1965.8	1958.7	1963.4	1968.2	1970.6
12.5°	1956.3	1963.4	1961.1	1965.8	1963.4	1968.2	1972.9	1977.7
15°	1951.6	1958.7	1953.9	1961.1	1958.7	1961.1	1970.6	1970.6
17.5°	1925.5	1932.6	1932.6	1937.3	1937.3	1944.4	1949.2	1953.9
20°	1892.2	1899.3	1897.0	1904.1	1904.1	1911.2	1916.0	1920.7
22.5°	1842.4	1851.9	1849.5	1856.6	1854.2	1859.0	1868.5	1866.1
25°	1778.3	1790.1	1787.7	1792.5	1790.1	1790.1	1794.9	1797.2
27.5°	1699.9	1707.0	1704.7	1709.4	1704.7	1709.4	1714.1	1716.5
30°	1597.8	1602.6	1600.2	1602.6	1600.2	1604.9	1607.3	1612.1
32.5°	1474.4	1481.5	1474.4	1479.1	1476.7	1476.7	1486.2	1481.5
35°	1327.2	1329.5	1331.9	1331.9	1327.2	1329.5	1334.3	1334.3
37.5°	1163.3	1175.2	1161.0	1168.1	1165.7	1165.7	1165.7	1172.8
40°	992.4	994.8	990.0	990.0	990.0	987.7	997.2	994.8
42.5°	831.0	833.3	831.0	823.8	826.2	826.2	833.3	823.8
45°	674.3	679.0	676.6	676.6	671.9	671.9	674.3	669.5
47.5°	534.2	538.9	531.8	534.2	529.4	534.2	531.8	536.6
50°	406.0	410.7	408.4	410.7	410.7	406.0	413.1	403.6
52.5°	303.9	306.3	303.9	301.5	299.1	299.1	303.9	301.5
55°	216.0	213.7	213.7	213.7	216.0	216.0	213.7	211.3
57.5°	144.8	144.8	142.5	142.5	144.8	140.1	142.5	140.1
60°	92.6	92.6	92.6	92.6	90.2	92.6	92.6	92.6
62.5°	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
65°	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
67.5°	23.7	26.1	26.1	26.1	23.7	23.7	23.7	23.7
70°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
72.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
75°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
77.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
80°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)