

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: P252309

Luminaire Tested: **LD6B50D010TE EU6B30509730 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252309  
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: LD6B50D010TE EU6B30509730 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3688.0 lumens  
Efficiency: N/A  
Efficacy: 62.8 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

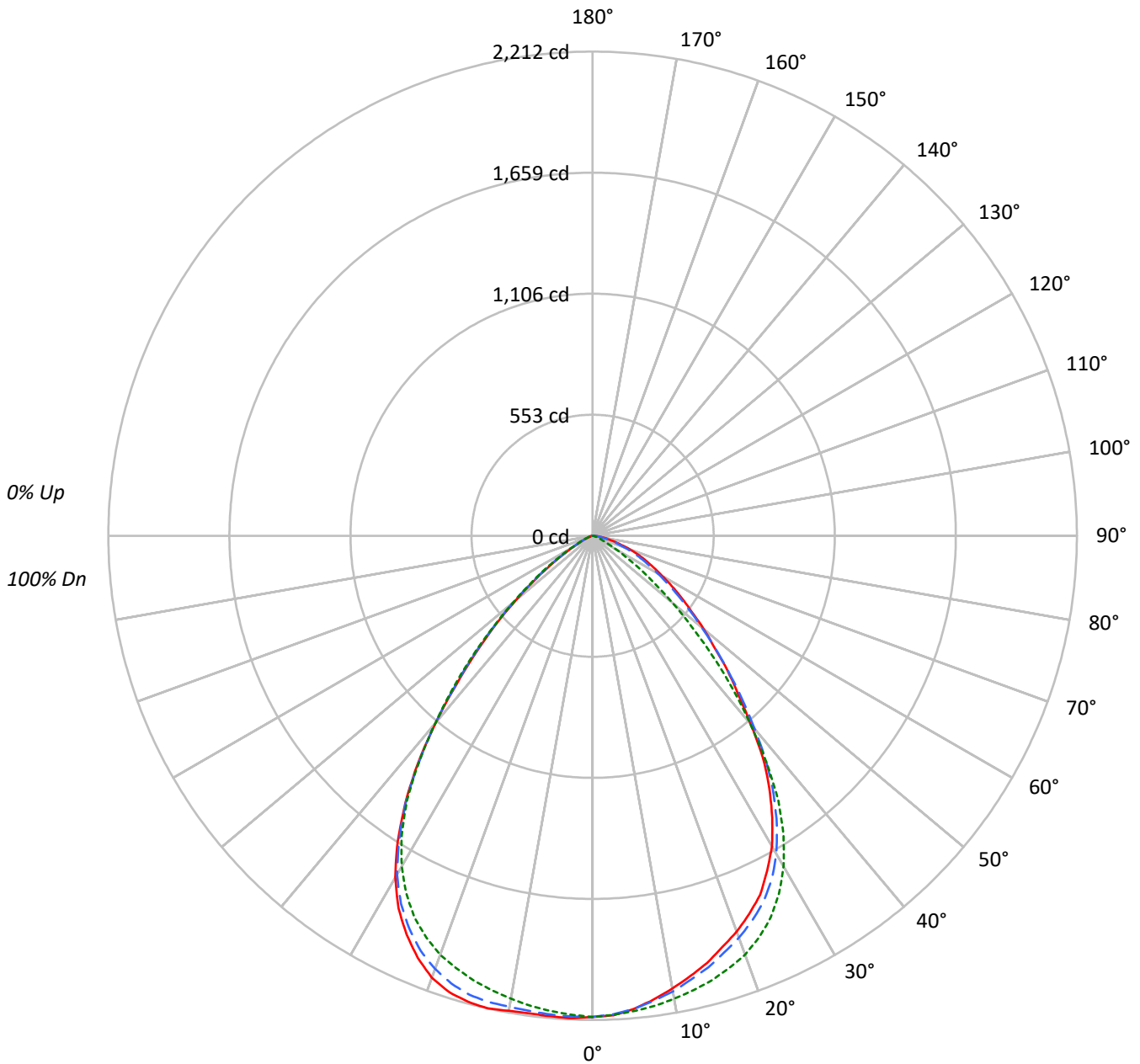
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64					64			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58					58			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52					52			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47					47			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43					43			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40					40			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37					37			

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

	0°	90°	180°
0°	143418	143418	143418
5°	142054	142748	144313
10°	139119	142285	145982
15°	136462	142021	148836
20°	133634	141375	149117
25°	130343	138557	144676
30°	123404	131404	135803
35°	112067	117778	118837
40°	95641	95190	94738
45°	80344	71283	69078
50°	67099	48231	45805
55°	56474	29596	26878
60°	47808	15593	13505
65°	41387	8197	6561
70°	34431	5055	3548
75°	25434	3353	2017
80°	19950	1991	1014
85°	15869	2021	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.2	5.6
10°-20°	593.2	16.1
20°-30°	876.0	23.8
30°-40°	902.7	24.5
40°-50°	623.5	16.9
50°-60°	307.3	8.3
60°-70°	124.5	3.4
70°-80°	44.4	1.2
80°-90°	9.2	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°	1676.3	45.5
0°-40°	2579.1	69.9
0°-60°	3509.9	95.2
0°-90°	3688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3688.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2198	2198	2198	2198	2198	
5°	2169	2169	2180	2196	2204	205
15°	2020	2042	2103	2172	2204	569
25°	1811	1845	1925	1981	2010	828
35°	1407	1442	1479	1487	1492	872
45°	871	876	773	762	749	673
55°	496	478	260	244	236	449
65°	268	242	53	42	42	266
75°	101	85	13	8	8	113
85°	21	16	3	0	0	26
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°	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3
2.5°	2193.0	2185.0	2190.3	2179.7	2193.0	2179.7	2182.3	2185.0	2182.3	2185.0	2187.7
5°	2169.1	2161.1	2169.1	2155.8	2169.1	2161.1	2161.1	2163.8	2163.8	2166.4	2169.1
7.5°	2137.2	2129.2	2137.2	2123.9	2139.9	2131.9	2131.9	2137.2	2134.6	2137.2	2142.5
10°	2100.0	2089.4	2097.4	2089.4	2105.4	2094.7	2100.0	2100.0	2100.0	2108.0	2113.3
12.5°	2060.2	2049.6	2060.2	2046.9	2062.9	2054.9	2057.6	2065.5	2068.2	2073.5	2076.1
15°	2020.4	2007.1	2012.4	2004.5	2020.4	2012.4	2015.1	2025.7	2025.7	2033.7	2041.6
17.5°	1970.0	1959.3	1970.0	1959.3	1972.6	1967.3	1972.6	1980.6	1980.6	1988.5	1996.5
20°	1924.8	1914.2	1922.2	1914.2	1930.1	1922.2	1924.8	1935.4	1938.1	1946.1	1954.0
22.5°	1869.1	1861.1	1866.4	1858.4	1874.4	1869.1	1871.7	1882.3	1885.0	1890.3	1903.6
25°	1810.7	1794.7	1802.7	1797.4	1813.3	1805.3	1810.7	1821.3	1826.6	1834.6	1845.2
27.5°	1725.7	1717.7	1723.0	1723.0	1736.3	1728.4	1731.0	1741.6	1749.6	1757.6	1770.8
30°	1638.1	1624.8	1630.1	1632.8	1643.4	1638.1	1643.4	1654.0	1656.7	1667.3	1677.9
32.5°	1526.6	1521.3	1531.9	1526.6	1531.9	1531.9	1534.5	1542.5	1547.8	1553.1	1566.4
35°	1407.1	1396.5	1407.1	1401.8	1415.1	1407.1	1415.1	1423.0	1423.0	1433.7	1441.6
37.5°	1277.0	1263.7	1269.1	1269.1	1274.4	1271.7	1271.7	1285.0	1287.6	1295.6	1303.6
40°	1123.0	1117.7	1128.3	1125.7	1128.3	1128.3	1131.0	1139.0	1144.3	1146.9	1149.6
42.5°	985.0	987.6	990.3	990.3	990.3	990.3	990.3	1000.9	998.3	1006.2	1008.9
45°	870.8	860.2	865.5	862.8	870.8	862.8	870.8	878.8	873.5	881.4	876.1
47.5°	754.0	754.0	754.0	751.3	756.7	754.0	759.3	762.0	762.0	762.0	759.3
50°	661.1	653.1	655.8	655.8	658.4	655.8	661.1	663.7	663.7	658.4	647.8
52.5°	570.8	568.2	568.2	573.5	573.5	570.8	570.8	570.8	570.8	562.8	557.5
55°	496.5	491.2	493.8	493.8	493.8	493.8	496.5	493.8	493.8	485.9	477.9
57.5°	430.1	424.8	424.8	424.8	427.4	424.8	424.8	424.8	422.1	414.2	403.5
60°	366.4	363.7	366.4	366.4	369.0	366.4	366.4	366.4	361.1	353.1	342.5
62.5°	313.3	313.3	313.3	315.9	315.9	313.3	313.3	310.6	308.0	297.4	286.7
65°	268.1	265.5	268.1	268.1	270.8	270.8	268.1	265.5	262.8	252.2	241.6
67.5°	223.0	220.4	223.0	223.0	225.7	223.0	223.0	223.0	215.0	209.7	199.1
70°	180.5	177.9	177.9	177.9	180.5	175.2	177.9	177.9	172.6	164.6	154.0
72.5°	138.1	138.1	138.1	138.1	138.1	138.1	135.4	135.4	130.1	122.1	116.8
75°	100.9	100.9	103.5	103.5	100.9	100.9	100.9	98.2	95.6	90.3	85.0
77.5°	74.3	74.3	74.3	74.3	71.7	71.7	71.7	69.0	66.4	63.7	58.4
80°	53.1	53.1	53.1	50.4	53.1	50.4	50.4	50.4	45.1	42.5	39.8
82.5°	37.2	34.5	34.5	34.5	34.5	34.5	34.5	31.9	31.9	29.2	26.5
85°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	18.6	15.9	15.9
87.5°	10.6	13.3	13.3	13.3	13.3	13.3	13.3	10.6	10.6	10.6	8.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3
2.5°	2187.7	2187.7	2193.0	2185.0	2198.3	2190.3	2187.7	2200.9	2193.0	2190.3	2195.6
5°	2169.1	2171.7	2174.4	2169.1	2182.3	2174.4	2174.4	2187.7	2182.3	2179.7	2187.7
7.5°	2145.2	2147.8	2153.1	2150.5	2161.1	2155.8	2158.5	2171.7	2166.4	2166.4	2174.4
10°	2116.0	2121.3	2126.6	2126.6	2139.9	2134.6	2134.6	2150.5	2145.2	2147.8	2158.5
12.5°	2081.5	2089.4	2097.4	2100.0	2113.3	2105.4	2108.0	2126.6	2123.9	2126.6	2137.2
15°	2044.3	2054.9	2062.9	2062.9	2078.8	2070.8	2078.8	2097.4	2092.1	2102.7	2116.0
17.5°	2001.8	2012.4	2023.1	2025.7	2041.6	2036.3	2046.9	2065.5	2065.5	2070.8	2086.8
20°	1962.0	1975.3	1980.6	1988.5	2004.5	2001.8	2007.1	2028.4	2028.4	2036.3	2052.3
22.5°	1908.9	1922.2	1932.8	1940.7	1954.0	1954.0	1962.0	1980.6	1980.6	1985.9	2001.8
25°	1850.5	1866.4	1874.4	1882.3	1895.6	1893.0	1900.9	1916.9	1919.5	1924.8	1940.7
27.5°	1776.1	1789.4	1800.0	1805.3	1823.9	1813.3	1821.3	1839.9	1837.2	1842.5	1855.8
30°	1683.2	1696.5	1707.1	1707.1	1723.0	1723.0	1731.0	1739.0	1739.0	1744.3	1754.9
32.5°	1574.4	1590.3	1590.3	1598.3	1608.9	1598.3	1608.9	1619.5	1614.2	1622.2	1630.1
35°	1449.6	1457.6	1460.2	1460.2	1468.2	1465.5	1462.9	1470.8	1465.5	1478.8	1486.8
37.5°	1298.3	1308.9	1303.6	1308.9	1306.2	1298.3	1298.3	1311.5	1300.9	1303.6	1311.5
40°	1152.2	1152.2	1149.6	1136.3	1139.0	1131.0	1128.3	1131.0	1120.4	1117.7	1128.3
42.5°	1000.9	998.3	990.3	971.7	974.4	961.1	950.5	950.5	945.2	942.5	945.2
45°	865.5	857.5	844.3	823.0	817.7	807.1	785.9	780.5	772.6	772.6	775.2
47.5°	740.7	730.1	708.9	685.0	671.7	658.4	637.2	629.2	615.9	610.6	615.9
50°	637.2	618.6	592.0	557.5	544.3	528.3	507.1	493.8	480.5	475.2	472.6
52.5°	541.6	515.1	488.5	446.0	435.4	419.5	390.3	377.0	363.7	353.1	353.1
55°	459.3	435.4	398.2	358.4	342.5	326.6	297.4	278.8	265.5	260.2	254.9
57.5°	385.0	358.4	323.9	281.4	265.5	249.6	220.4	201.8	188.5	180.5	175.2
60°	323.9	294.7	260.2	223.0	204.4	188.5	159.3	140.7	127.4	119.5	114.2
62.5°	265.5	241.6	207.1	172.6	156.6	140.7	116.8	98.2	85.0	79.6	71.7
65°	223.0	199.1	167.3	138.1	124.8	108.9	87.6	71.7	61.1	53.1	47.8
67.5°	180.5	162.0	135.4	108.9	95.6	85.0	66.4	53.1	42.5	37.2	34.5
70°	143.4	124.8	103.5	82.3	74.3	63.7	50.4	37.2	31.9	26.5	23.9
72.5°	106.2	92.9	77.0	61.1	53.1	47.8	34.5	29.2	21.2	18.6	15.9
75°	77.0	66.4	55.8	42.5	37.2	34.5	26.5	18.6	15.9	13.3	10.6
77.5°	53.1	47.8	37.2	29.2	26.5	23.9	18.6	13.3	10.6	8.0	8.0
80°	34.5	29.2	23.9	18.6	18.6	15.9	10.6	8.0	8.0	5.3	5.3
82.5°	21.2	18.6	15.9	13.3	10.6	10.6	8.0	5.3	5.3	2.7	2.7
85°	13.3	10.6	8.0	8.0	5.3	5.3	5.3	2.7	2.7	2.7	2.7
87.5°	5.3	5.3	5.3	2.7	2.7	2.7	2.7	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°	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3
2.5°	2195.6	2195.6	2200.9	2193.0	2198.3	2198.3	2203.6	2193.0	2198.3	2200.9	2206.2
5°	2185.0	2187.7	2193.0	2190.3	2193.0	2193.0	2198.3	2185.0	2195.6	2195.6	2203.6
7.5°	2174.4	2174.4	2179.7	2177.0	2182.3	2185.0	2190.3	2179.7	2190.3	2190.3	2198.3
10°	2161.1	2161.1	2169.1	2166.4	2174.4	2177.0	2185.0	2174.4	2185.0	2187.7	2195.6
12.5°	2142.5	2145.2	2153.1	2153.1	2161.1	2166.4	2174.4	2169.1	2182.3	2185.0	2195.6
15°	2121.3	2126.6	2137.2	2134.6	2142.5	2150.5	2161.1	2153.1	2171.7	2177.0	2187.7
17.5°	2094.7	2100.0	2108.0	2108.0	2116.0	2121.3	2134.6	2129.2	2145.2	2147.8	2161.1
20°	2054.9	2062.9	2073.5	2070.8	2078.8	2084.1	2094.7	2089.4	2105.4	2110.7	2123.9
22.5°	2007.1	2012.4	2020.4	2020.4	2028.4	2033.7	2044.3	2036.3	2052.3	2054.9	2065.5
25°	1943.4	1948.7	1954.0	1956.7	1964.6	1967.3	1972.6	1967.3	1980.6	1983.2	1996.5
27.5°	1861.1	1863.8	1871.7	1871.7	1877.0	1879.7	1887.6	1877.0	1895.6	1895.6	1903.6
30°	1762.9	1760.2	1770.8	1765.5	1770.8	1770.8	1778.8	1773.5	1786.8	1781.5	1789.4
32.5°	1632.8	1638.1	1638.1	1632.8	1643.4	1640.7	1640.7	1635.4	1643.4	1646.1	1651.4
35°	1481.4	1489.4	1489.4	1492.1	1494.7	1486.8	1489.4	1473.5	1486.8	1489.4	1492.1
37.5°	1316.8	1308.9	1314.2	1306.2	1319.5	1303.6	1303.6	1292.9	1303.6	1303.6	1306.2
40°	1128.3	1125.7	1131.0	1125.7	1123.0	1120.4	1115.1	1107.1	1117.7	1112.4	1120.4
42.5°	950.5	947.8	947.8	942.5	939.8	939.8	934.5	929.2	926.6	926.6	939.8
45°	767.3	772.6	767.3	764.6	769.9	764.6	767.3	756.7	762.0	756.7	762.0
47.5°	613.3	615.9	610.6	605.3	613.3	605.3	605.3	597.4	608.0	608.0	602.7
50°	475.2	472.6	467.3	472.6	469.9	469.9	469.9	462.0	467.3	459.3	464.6
52.5°	350.4	347.8	347.8	345.1	347.8	345.1	345.1	342.5	342.5	339.8	342.5
55°	254.9	252.2	246.9	246.9	246.9	249.6	246.9	244.3	244.3	241.6	244.3
57.5°	172.6	167.3	167.3	167.3	167.3	164.6	164.6	162.0	164.6	162.0	164.6
60°	111.5	111.5	106.2	106.2	106.2	106.2	106.2	103.5	106.2	106.2	106.2
62.5°	69.0	69.0	66.4	63.7	66.4	63.7	63.7	63.7	66.4	63.7	66.4
65°	45.1	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
67.5°	31.9	29.2	29.2	29.2	29.2	29.2	29.2	26.5	29.2	29.2	29.2
70°	21.2	21.2	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
72.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
75°	10.6	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
77.5°	8.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
80°	5.3	5.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	2.7	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	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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: P252309

CATALOG NUMBER: LD6B50D010TE EU6B30509730 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3	2198.3
2.5°	2198.3	2200.9	2195.6	2198.3	2193.0	2198.3	2200.9	2206.2
5°	2193.0	2195.6	2190.3	2195.6	2190.3	2195.6	2198.3	2203.6
7.5°	2187.7	2193.0	2187.7	2193.0	2187.7	2193.0	2195.6	2200.9
10°	2187.7	2195.6	2190.3	2198.3	2190.3	2195.6	2200.9	2203.6
12.5°	2187.7	2195.6	2193.0	2198.3	2195.6	2200.9	2206.2	2211.5
15°	2182.3	2190.3	2185.0	2193.0	2190.3	2193.0	2203.6	2203.6
17.5°	2153.1	2161.1	2161.1	2166.4	2166.4	2174.4	2179.7	2185.0
20°	2116.0	2123.9	2121.3	2129.2	2129.2	2137.2	2142.5	2147.8
22.5°	2060.2	2070.8	2068.2	2076.1	2073.5	2078.8	2089.4	2086.8
25°	1988.5	2001.8	1999.2	2004.5	2001.8	2001.8	2007.1	2009.8
27.5°	1900.9	1908.9	1906.2	1911.5	1906.2	1911.5	1916.9	1919.5
30°	1786.8	1792.1	1789.4	1792.1	1789.4	1794.7	1797.4	1802.7
32.5°	1648.7	1656.7	1648.7	1654.0	1651.4	1651.4	1662.0	1656.7
35°	1484.1	1486.8	1489.4	1489.4	1484.1	1486.8	1492.1	1492.1
37.5°	1300.9	1314.2	1298.3	1306.2	1303.6	1303.6	1303.6	1311.5
40°	1109.8	1112.4	1107.1	1107.1	1107.1	1104.4	1115.1	1112.4
42.5°	929.2	931.9	929.2	921.3	923.9	923.9	931.9	921.3
45°	754.0	759.3	756.7	756.7	751.3	751.3	754.0	748.7
47.5°	597.4	602.7	594.7	597.4	592.0	597.4	594.7	600.0
50°	454.0	459.3	456.6	459.3	459.3	454.0	462.0	451.3
52.5°	339.8	342.5	339.8	337.2	334.5	334.5	339.8	337.2
55°	241.6	238.9	238.9	238.9	241.6	241.6	238.9	236.3
57.5°	162.0	162.0	159.3	159.3	162.0	156.6	159.3	156.6
60°	103.5	103.5	103.5	103.5	100.9	103.5	103.5	103.5
62.5°	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
65°	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5
67.5°	26.5	29.2	29.2	29.2	26.5	26.5	26.5	26.5
70°	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
72.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
75°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
77.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	2.7	2.7	2.7	2.7	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)