

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: P252722

Luminaire Tested: **LD6B50D010TE EU6B30509040 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252722  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B50D010TE EU6B30509040 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4330.0 lumens  
Efficiency: N/A  
Efficacy: 73.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

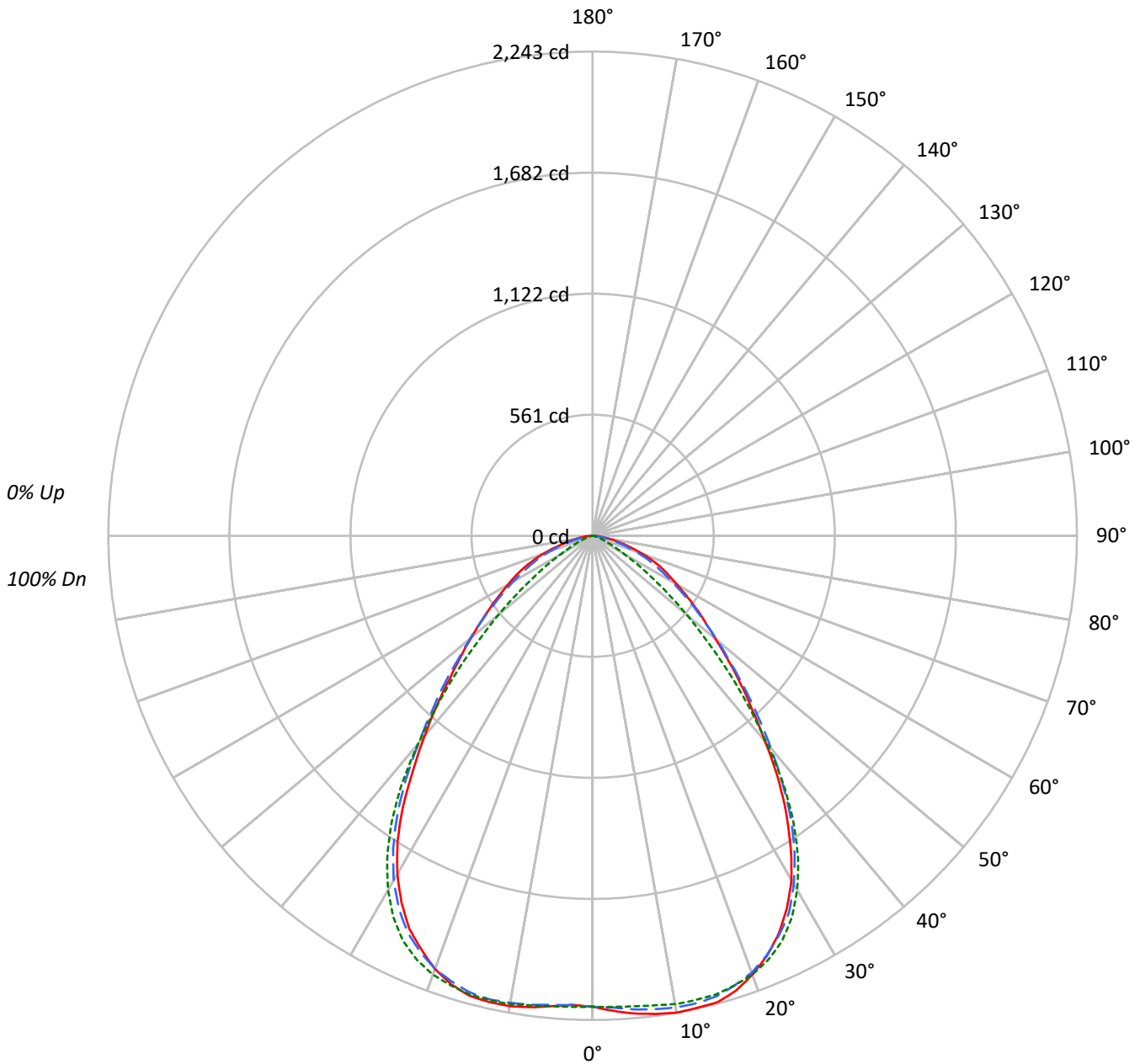
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68																			
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61																			
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54																			
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48																			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44																			
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40																			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36																			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33																			

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

	0°	90°	180°
0°	142322	142322	142322
5°	145499	143272	143272
10°	148612	145949	146565
15°	151098	148599	149011
20°	150172	150172	148249
25°	146598	149261	144604
30°	138772	142727	136218
35°	124348	129262	121895
40°	105639	106959	103016
45°	89395	81709	86258
50°	75473	57630	74539
55°	66335	37206	65630
60°	58782	22143	59186
65°	54308	13338	54308
70°	47096	7649	45914
75°	37332	4663	35013
80°	27840	3494	26675
85°	25376	2321	23130



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.0	4.9
10°-20°	621.6	14.4
20°-30°	934.9	21.6
30°-40°	982.9	22.7
40°-50°	734.3	17.0
50°-60°	457.1	10.6
60°-70°	260.0	6.0
70°-80°	107.1	2.5
80°-90°	22.1	0.5
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°	1766.5	40.8
0°-40°	2749.4	63.5
0°-60°	3940.8	91.0
0°-90°	4330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4330.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2182	2182	2182	2182	2182	
5°	2222	2203	2188	2182	2188	213
15°	2237	2209	2200	2191	2206	629
25°	2036	2043	2074	2027	2009	932
35°	1561	1601	1623	1577	1530	969
45°	969	990	886	972	935	751
55°	583	571	327	562	577	524
65°	352	315	86	315	352	346
75°	148	117	18	114	139	161
85°	34	22	3	18	31	38
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°	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5
2.5°	2203.1	2200.1	2203.1	2197.0	2193.9	2193.9	2197.0	2190.8	2187.7	2190.8	2187.7
5°	2221.7	2215.5	2218.6	2215.5	2209.3	2209.3	2212.4	2203.1	2203.1	2206.2	2203.1
7.5°	2234.0	2234.0	2234.0	2227.8	2224.7	2221.7	2227.8	2218.6	2215.5	2215.5	2212.4
10°	2243.3	2240.2	2243.3	2237.1	2230.9	2227.8	2234.0	2227.8	2221.7	2227.8	2218.6
12.5°	2240.2	2240.2	2240.2	2237.1	2230.9	2227.8	2234.0	2224.7	2221.7	2224.7	2218.6
15°	2237.1	2227.8	2230.9	2227.8	2218.6	2218.6	2221.7	2212.4	2206.2	2215.5	2209.3
17.5°	2209.3	2203.1	2206.2	2200.1	2193.9	2190.8	2193.9	2190.8	2184.6	2190.8	2184.6
20°	2163.0	2163.0	2166.1	2159.9	2153.8	2150.7	2156.9	2150.7	2144.5	2153.8	2153.8
22.5°	2107.5	2107.5	2107.5	2104.4	2101.3	2101.3	2101.3	2098.2	2095.1	2101.3	2104.4
25°	2036.5	2033.4	2036.5	2039.6	2036.5	2033.4	2036.5	2036.5	2030.4	2042.7	2042.7
27.5°	1947.0	1947.0	1953.2	1950.1	1950.1	1947.0	1953.2	1953.2	1950.1	1959.4	1968.6
30°	1842.1	1836.0	1842.1	1842.1	1845.2	1845.2	1848.3	1848.3	1848.3	1857.6	1863.7
32.5°	1706.4	1709.4	1718.7	1715.6	1712.5	1721.8	1721.8	1728.0	1731.0	1737.2	1740.3
35°	1561.3	1564.4	1564.4	1567.5	1573.7	1567.5	1582.9	1579.8	1582.9	1595.3	1601.4
37.5°	1407.1	1397.8	1413.2	1407.1	1410.1	1410.1	1416.3	1419.4	1428.7	1444.1	1444.1
40°	1240.4	1243.5	1249.7	1252.8	1255.9	1255.9	1255.9	1265.1	1268.2	1286.7	1283.6
42.5°	1095.4	1095.4	1101.6	1104.7	1104.7	1104.7	1104.7	1113.9	1120.1	1126.3	1132.4
45°	968.9	959.6	965.8	965.8	972.0	968.9	975.1	981.2	984.3	993.6	990.5
47.5°	848.6	845.5	848.6	851.6	848.6	851.6	854.7	857.8	860.9	860.9	860.9
50°	743.6	743.6	746.7	749.8	749.8	749.8	749.8	752.9	752.9	759.1	752.9
52.5°	657.2	660.3	660.3	657.2	660.3	660.3	663.4	663.4	660.3	660.3	651.1
55°	583.2	580.1	583.2	580.1	583.2	583.2	580.1	580.1	577.0	573.9	570.8
57.5°	512.2	512.2	512.2	512.2	509.1	512.2	509.1	506.0	506.0	499.9	490.6
60°	450.5	450.5	450.5	450.5	450.5	447.4	450.5	447.4	441.2	435.1	422.7
62.5°	398.0	395.0	398.0	395.0	395.0	391.9	391.9	388.8	382.6	376.4	364.1
65°	351.8	354.8	351.8	351.8	348.7	345.6	345.6	342.5	333.2	327.1	314.7
67.5°	302.4	299.3	299.3	299.3	296.2	296.2	296.2	290.1	283.9	274.6	262.3
70°	246.9	246.9	246.9	243.8	243.8	240.7	240.7	237.6	231.4	225.3	209.8
72.5°	194.4	194.4	194.4	188.2	191.3	188.2	188.2	182.1	179.0	169.7	160.5
75°	148.1	148.1	145.0	145.0	141.9	138.9	138.9	135.8	132.7	126.5	117.3
77.5°	108.0	108.0	108.0	104.9	101.8	98.7	98.7	95.7	92.6	89.5	83.3
80°	74.1	74.1	74.1	74.1	71.0	67.9	67.9	64.8	64.8	61.7	55.5
82.5°	49.4	49.4	49.4	49.4	46.3	46.3	46.3	43.2	40.1	40.1	33.9
85°	33.9	33.9	30.9	30.9	30.9	30.9	27.8	27.8	24.7	21.6	21.6
87.5°	18.5	18.5	18.5	18.5	15.4	15.4	15.4	15.4	12.3	12.3	9.3
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°	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5
2.5°	2197.0	2197.0	2193.9	2184.6	2187.7	2184.6	2187.7	2184.6	2175.4	2184.6	2175.4
5°	2209.3	2212.4	2206.2	2193.9	2197.0	2193.9	2193.9	2190.8	2181.5	2187.7	2181.5
7.5°	2221.7	2218.6	2215.5	2203.1	2206.2	2203.1	2203.1	2197.0	2187.7	2193.9	2184.6
10°	2227.8	2227.8	2221.7	2209.3	2209.3	2206.2	2209.3	2206.2	2193.9	2203.1	2197.0
12.5°	2227.8	2224.7	2224.7	2209.3	2212.4	2209.3	2212.4	2206.2	2197.0	2203.1	2200.1
15°	2218.6	2218.6	2215.5	2200.1	2203.1	2203.1	2206.2	2200.1	2190.8	2200.1	2193.9
17.5°	2200.1	2200.1	2197.0	2184.6	2190.8	2190.8	2193.9	2187.7	2178.5	2184.6	2184.6
20°	2163.0	2166.1	2166.1	2156.9	2163.0	2163.0	2166.1	2163.0	2159.9	2163.0	2156.9
22.5°	2119.8	2126.0	2126.0	2116.7	2122.9	2122.9	2132.2	2129.1	2122.9	2126.0	2122.9
25°	2055.0	2061.2	2067.4	2061.2	2067.4	2067.4	2076.6	2073.5	2067.4	2073.5	2064.3
27.5°	1981.0	1984.1	1990.2	1984.1	1993.3	1990.2	1999.5	1996.4	1987.2	1996.4	1993.3
30°	1876.1	1888.4	1897.7	1888.4	1897.7	1897.7	1903.8	1900.8	1897.7	1894.6	1894.6
32.5°	1758.8	1771.2	1771.2	1768.1	1774.2	1774.2	1777.3	1771.2	1768.1	1771.2	1774.2
35°	1613.8	1620.0	1626.1	1623.0	1626.1	1629.2	1626.1	1629.2	1620.0	1623.0	1623.0
37.5°	1456.4	1462.6	1462.6	1453.3	1459.5	1459.5	1453.3	1453.3	1447.2	1453.3	1441.0
40°	1289.8	1283.6	1286.7	1280.5	1274.4	1274.4	1271.3	1258.9	1252.8	1255.9	1258.9
42.5°	1126.3	1126.3	1117.0	1101.6	1086.1	1086.1	1076.9	1070.7	1058.4	1064.5	1061.5
45°	987.4	972.0	959.6	934.9	925.7	919.5	904.1	888.7	882.5	885.6	882.5
47.5°	854.7	842.4	811.5	777.6	768.3	759.1	740.6	722.0	715.9	709.7	709.7
50°	743.6	722.0	688.1	651.1	635.6	620.2	595.5	577.0	564.7	567.8	567.8
52.5°	641.8	617.1	577.0	530.7	512.2	493.7	472.1	450.5	441.2	438.2	438.2
55°	552.3	524.6	484.4	432.0	416.6	395.0	367.2	342.5	330.2	327.1	333.2
57.5°	472.1	447.4	401.1	348.7	330.2	308.6	280.8	259.2	243.8	240.7	243.8
60°	407.3	373.4	333.2	283.9	259.2	240.7	209.8	191.3	175.9	169.7	172.8
62.5°	342.5	311.6	271.5	222.2	203.7	185.1	157.4	135.8	123.4	120.3	123.4
65°	293.1	262.3	225.3	182.1	163.5	145.0	120.3	98.7	89.5	86.4	89.5
67.5°	243.8	216.0	185.1	145.0	129.6	114.2	89.5	74.1	61.7	58.6	61.7
70°	197.5	172.8	141.9	114.2	98.7	86.4	67.9	52.5	43.2	40.1	43.2
72.5°	148.1	129.6	108.0	83.3	74.1	64.8	49.4	37.0	30.9	27.8	30.9
75°	108.0	92.6	77.1	58.6	52.5	46.3	33.9	24.7	21.6	18.5	21.6
77.5°	74.1	64.8	52.5	40.1	33.9	30.9	21.6	18.5	15.4	12.3	12.3
80°	49.4	43.2	33.9	27.8	24.7	21.6	15.4	12.3	9.3	9.3	9.3
82.5°	30.9	24.7	21.6	15.4	12.3	12.3	9.3	6.2	6.2	6.2	6.2
85°	18.5	15.4	12.3	9.3	6.2	6.2	3.1	3.1	3.1	3.1	3.1
87.5°	9.3	6.2	6.2	3.1	3.1	3.1	3.1	3.1	0.0	0.0	3.1
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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5
2.5°	2181.5	2175.4	2175.4	2178.5	2181.5	2184.6	2178.5	2175.4	2175.4	2184.6	2178.5
5°	2181.5	2178.5	2178.5	2178.5	2184.6	2187.7	2181.5	2178.5	2181.5	2190.8	2187.7
7.5°	2190.8	2184.6	2187.7	2187.7	2190.8	2197.0	2190.8	2187.7	2190.8	2200.1	2193.9
10°	2197.0	2190.8	2193.9	2190.8	2200.1	2203.1	2197.0	2193.9	2197.0	2209.3	2206.2
12.5°	2200.1	2197.0	2197.0	2193.9	2203.1	2206.2	2200.1	2197.0	2200.1	2209.3	2206.2
15°	2193.9	2190.8	2190.8	2190.8	2197.0	2203.1	2193.9	2190.8	2190.8	2200.1	2197.0
17.5°	2181.5	2175.4	2175.4	2175.4	2178.5	2181.5	2172.3	2169.2	2166.1	2175.4	2172.3
20°	2159.9	2153.8	2147.6	2147.6	2150.7	2150.7	2144.5	2135.3	2135.3	2138.3	2132.2
22.5°	2119.8	2116.7	2110.6	2107.5	2113.7	2110.6	2098.2	2089.0	2085.9	2089.0	2082.8
25°	2064.3	2058.1	2055.0	2051.9	2055.0	2051.9	2039.6	2027.3	2027.3	2027.3	2018.0
27.5°	1987.2	1981.0	1977.9	1977.9	1981.0	1974.8	1962.5	1950.1	1944.0	1944.0	1934.7
30°	1888.4	1888.4	1885.3	1882.2	1879.2	1879.2	1860.6	1848.3	1842.1	1845.2	1839.0
32.5°	1768.1	1765.0	1761.9	1752.6	1755.7	1752.6	1737.2	1728.0	1718.7	1712.5	1709.4
35°	1613.8	1613.8	1610.7	1610.7	1610.7	1607.6	1592.2	1582.9	1576.8	1573.7	1564.4
37.5°	1444.1	1441.0	1437.9	1437.9	1437.9	1437.9	1428.7	1419.4	1419.4	1416.3	1410.1
40°	1252.8	1255.9	1258.9	1255.9	1265.1	1274.4	1262.0	1255.9	1252.8	1262.0	1249.7
42.5°	1067.6	1064.5	1080.0	1083.1	1083.1	1098.5	1101.6	1104.7	1101.6	1107.7	1107.7
45°	888.7	885.6	901.0	907.2	922.6	941.1	950.4	965.8	972.0	978.1	972.0
47.5°	719.0	731.3	743.6	759.1	771.4	802.3	820.8	836.2	842.4	851.6	851.6
50°	577.0	589.4	611.0	623.3	638.7	675.8	706.6	728.2	740.6	749.8	746.7
52.5°	444.3	465.9	493.7	506.0	527.6	570.8	604.8	629.5	644.9	654.2	657.2
55°	342.5	361.0	388.8	407.3	428.9	475.2	518.4	546.2	561.6	573.9	580.1
57.5°	253.0	274.6	305.5	320.9	345.6	398.0	435.1	469.0	487.5	503.0	506.0
60°	185.1	206.7	234.5	253.0	277.7	330.2	373.4	404.2	425.8	438.2	444.3
62.5°	132.7	154.3	182.1	200.6	222.2	268.5	311.6	342.5	364.1	379.5	388.8
65°	95.7	117.3	145.0	160.5	179.0	222.2	262.3	293.1	314.7	333.2	339.4
67.5°	71.0	86.4	111.1	126.5	145.0	179.0	212.9	240.7	262.3	277.7	283.9
70°	52.5	64.8	86.4	95.7	108.0	138.9	166.6	191.3	209.8	222.2	228.3
72.5°	37.0	46.3	61.7	71.0	80.2	104.9	126.5	145.0	157.4	169.7	175.9
75°	24.7	30.9	43.2	49.4	55.5	74.1	89.5	104.9	114.2	123.4	126.5
77.5°	15.4	21.6	30.9	33.9	40.1	49.4	61.7	71.0	77.1	83.3	89.5
80°	9.3	12.3	18.5	21.6	24.7	33.9	40.1	46.3	52.5	58.6	61.7
82.5°	6.2	9.3	12.3	12.3	15.4	18.5	24.7	30.9	33.9	37.0	40.1
85°	3.1	3.1	6.2	6.2	9.3	9.3	12.3	15.4	18.5	21.6	24.7
87.5°	3.1	3.1	3.1	3.1	6.2	6.2	9.3	9.3	9.3	12.3	12.3
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: P252722

CATALOG NUMBER: LD6B50D010TE EU6B30509040 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5	2181.5
2.5°	2172.3	2181.5	2172.3	2178.5	2175.4	2175.4	2172.3	2175.4
5°	2181.5	2193.9	2181.5	2190.8	2184.6	2184.6	2184.6	2187.7
7.5°	2190.8	2203.1	2193.9	2203.1	2200.1	2197.0	2197.0	2203.1
10°	2200.1	2209.3	2203.1	2212.4	2209.3	2206.2	2206.2	2212.4
12.5°	2200.1	2212.4	2206.2	2215.5	2212.4	2209.3	2209.3	2212.4
15°	2190.8	2206.2	2197.0	2206.2	2203.1	2200.1	2200.1	2206.2
17.5°	2163.0	2175.4	2169.2	2175.4	2175.4	2172.3	2175.4	2178.5
20°	2126.0	2135.3	2129.1	2135.3	2135.3	2129.1	2132.2	2135.3
22.5°	2073.5	2082.8	2076.6	2082.8	2079.7	2076.6	2076.6	2073.5
25°	2008.8	2021.1	2011.8	2018.0	2011.8	2005.7	2005.7	2008.8
27.5°	1928.5	1937.8	1925.4	1931.6	1925.4	1919.3	1919.3	1916.2
30°	1823.6	1826.7	1817.4	1823.6	1817.4	1814.4	1808.2	1808.2
32.5°	1697.1	1700.2	1690.9	1690.9	1684.8	1684.8	1672.4	1681.7
35°	1549.0	1552.1	1549.0	1545.9	1536.6	1533.6	1530.5	1530.5
37.5°	1394.7	1394.7	1385.5	1382.4	1376.2	1370.0	1373.1	1363.9
40°	1237.3	1234.3	1225.0	1228.1	1225.0	1215.7	1212.7	1209.6
42.5°	1089.2	1089.2	1080.0	1083.1	1076.9	1073.8	1064.5	1067.6
45°	959.6	959.6	950.4	950.4	947.3	938.0	941.1	934.9
47.5°	842.4	842.4	839.3	839.3	830.0	827.0	827.0	827.0
50°	740.6	740.6	740.6	740.6	737.5	734.4	731.3	734.4
52.5°	654.2	660.3	657.2	657.2	654.2	651.1	648.0	648.0
55°	577.0	580.1	580.1	583.2	580.1	577.0	580.1	577.0
57.5°	509.1	515.3	515.3	515.3	515.3	515.3	512.2	509.1
60°	450.5	453.6	453.6	456.7	456.7	456.7	453.6	453.6
62.5°	391.9	398.0	401.1	401.1	404.2	401.1	401.1	401.1
65°	345.6	351.8	354.8	351.8	354.8	354.8	351.8	351.8
67.5°	290.1	296.2	296.2	296.2	296.2	299.3	296.2	296.2
70°	234.5	240.7	237.6	240.7	240.7	240.7	240.7	240.7
72.5°	179.0	182.1	185.1	185.1	188.2	185.1	185.1	185.1
75°	129.6	135.8	135.8	135.8	135.8	138.9	138.9	138.9
77.5°	92.6	95.7	95.7	98.7	98.7	98.7	98.7	101.8
80°	64.8	64.8	67.9	67.9	71.0	71.0	71.0	71.0
82.5°	43.2	46.3	46.3	46.3	46.3	46.3	46.3	46.3
85°	24.7	27.8	27.8	27.8	27.8	30.9	30.9	30.9
87.5°	15.4	15.4	15.4	15.4	15.4	15.4	12.3	12.3
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)