

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: P252721

Luminaire Tested: **LD6B50D010TE EU6B30509035 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252721  
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 EU6B30509035 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

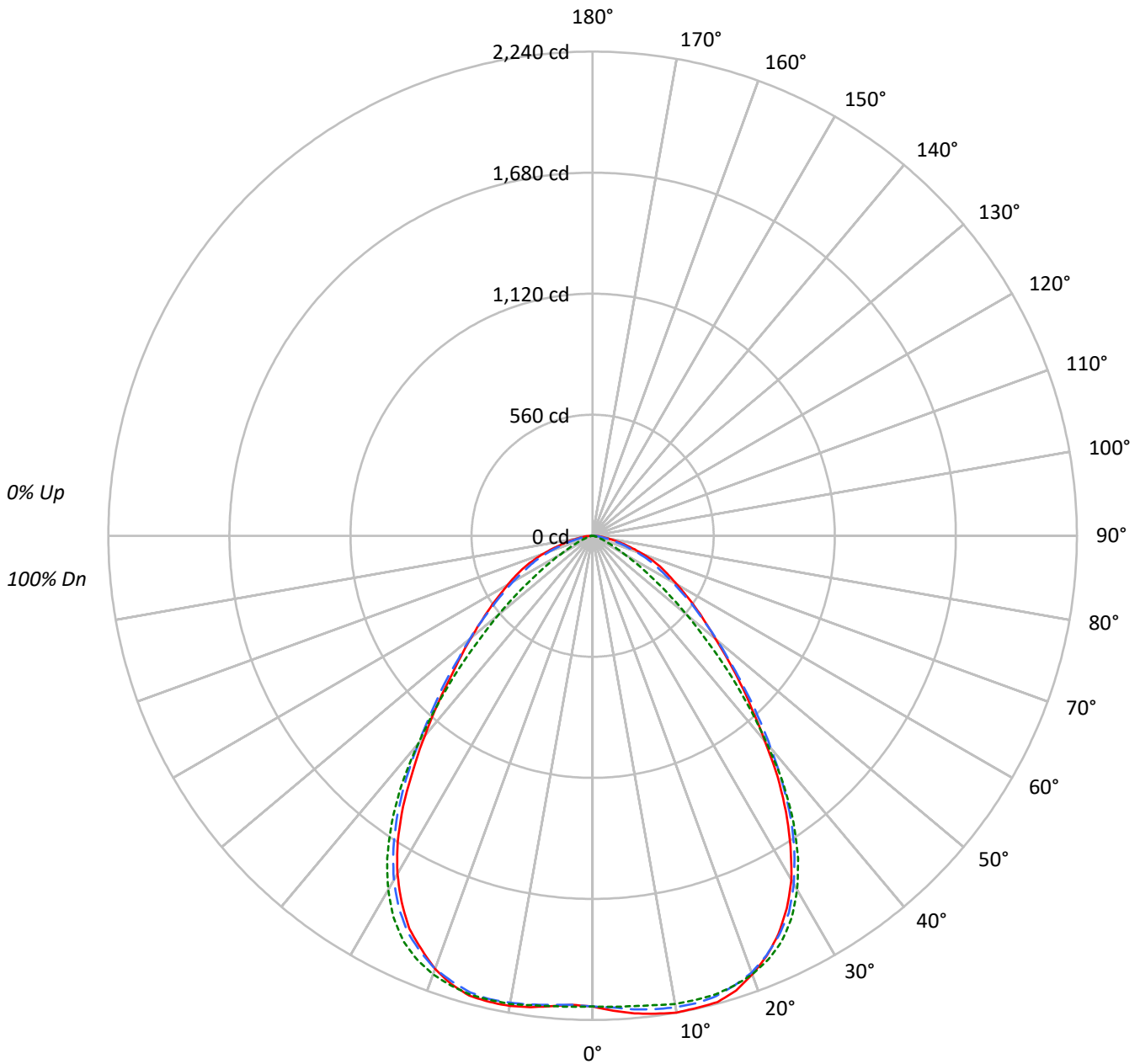
Lumens per Lamp: N/A  
Luminaire Lumens: 4323.0 lumens  
Efficiency: N/A  
Efficacy: 73.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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					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								
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°	142094	142094	142094
5°	145263	143043	143043
10°	148367	145717	146327
15°	150855	148356	148775
20°	149929	149929	148006
25°	146360	149023	144366
30°	138546	142493	135999
35°	124149	129055	121696
40°	105469	106781	102846
45°	89247	81571	86119
50°	75351	57528	74417
55°	66222	37137	65528
60°	58690	22104	59095
65°	54216	13322	54216
70°	47020	7630	45837
75°	37281	4663	34937
80°	27765	3456	26638
85°	25376	2321	23055



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.7	4.9
10°-20°	620.6	14.4
20°-30°	933.4	21.6
30°-40°	981.3	22.7
40°-50°	733.1	17.0
50°-60°	456.4	10.6
60°-70°	259.6	6.0
70°-80°	106.9	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°	1763.7	40.8
0°-40°	2745.0	63.5
0°-60°	3934.5	91.0
0°-90°	4323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4323.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2178	2178	2178	2178	2178	
5°	2218	2200	2184	2178	2184	212
15°	2234	2206	2196	2187	2203	628
25°	2033	2039	2070	2024	2006	931
35°	1559	1599	1620	1574	1528	967
45°	967	989	884	970	933	750
55°	582	570	326	561	576	524
65°	351	314	86	314	351	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°	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0
2.5°	2199.6	2196.5	2199.6	2193.4	2190.3	2190.3	2193.4	2187.3	2184.2	2187.3	2184.2
5°	2218.1	2211.9	2215.0	2211.9	2205.7	2205.7	2208.8	2199.6	2199.6	2202.7	2199.6
7.5°	2230.4	2230.4	2230.4	2224.2	2221.1	2218.1	2224.2	2215.0	2211.9	2211.9	2208.8
10°	2239.6	2236.6	2239.6	2233.5	2227.3	2224.2	2230.4	2224.2	2218.1	2224.2	2215.0
12.5°	2236.6	2236.6	2236.6	2233.5	2227.3	2224.2	2230.4	2221.1	2218.1	2221.1	2215.0
15°	2233.5	2224.2	2227.3	2224.2	2215.0	2215.0	2218.1	2208.8	2202.7	2211.9	2205.7
17.5°	2205.7	2199.6	2202.7	2196.5	2190.3	2187.3	2190.3	2187.3	2181.1	2187.3	2181.1
20°	2159.5	2159.5	2162.6	2156.5	2150.3	2147.2	2153.4	2147.2	2141.1	2150.3	2150.3
22.5°	2104.1	2104.1	2104.1	2101.0	2097.9	2097.9	2097.9	2094.8	2091.8	2097.9	2101.0
25°	2033.2	2030.1	2033.2	2036.3	2033.2	2030.1	2033.2	2033.2	2027.1	2039.4	2039.4
27.5°	1943.9	1943.9	1950.1	1947.0	1947.0	1943.9	1950.1	1950.1	1947.0	1956.2	1965.5
30°	1839.1	1833.0	1839.1	1839.1	1842.2	1842.2	1845.3	1845.3	1845.3	1854.6	1860.7
32.5°	1703.6	1706.7	1715.9	1712.8	1709.8	1719.0	1719.0	1725.2	1728.2	1734.4	1737.5
35°	1558.8	1561.9	1561.9	1565.0	1571.1	1565.0	1580.4	1577.3	1580.4	1592.7	1598.9
37.5°	1404.8	1395.5	1410.9	1404.8	1407.9	1407.9	1414.0	1417.1	1426.3	1441.7	1441.7
40°	1238.4	1241.5	1247.7	1250.7	1253.8	1253.8	1253.8	1263.1	1266.1	1284.6	1281.6
42.5°	1093.6	1093.6	1099.8	1102.9	1102.9	1102.9	1102.9	1112.1	1118.3	1124.4	1130.6
45°	967.3	958.1	964.2	964.2	970.4	967.3	973.5	979.6	982.7	992.0	988.9
47.5°	847.2	844.1	847.2	850.3	847.2	850.3	853.3	856.4	859.5	859.5	859.5
50°	742.4	742.4	745.5	748.6	748.6	748.6	748.6	751.7	751.7	757.8	751.7
52.5°	656.2	659.3	659.3	656.2	659.3	659.3	662.3	662.3	659.3	659.3	650.0
55°	582.2	579.2	582.2	579.2	582.2	582.2	579.2	579.2	576.1	573.0	569.9
57.5°	511.4	511.4	511.4	511.4	508.3	511.4	508.3	505.2	505.2	499.1	489.8
60°	449.8	449.8	449.8	449.8	449.8	446.7	449.8	446.7	440.5	434.4	422.0
62.5°	397.4	394.3	397.4	394.3	394.3	391.2	391.2	388.2	382.0	375.8	363.5
65°	351.2	354.3	351.2	351.2	348.1	345.0	345.0	342.0	332.7	326.5	314.2
67.5°	301.9	298.8	298.8	298.8	295.7	295.7	295.7	289.6	283.4	274.2	261.9
70°	246.5	246.5	246.5	243.4	243.4	240.3	240.3	237.2	231.0	224.9	209.5
72.5°	194.1	194.1	194.1	187.9	191.0	187.9	187.9	181.8	178.7	169.4	160.2
75°	147.9	147.9	144.8	144.8	141.7	138.6	138.6	135.5	132.5	126.3	117.1
77.5°	107.8	107.8	107.8	104.7	101.7	98.6	98.6	95.5	92.4	89.3	83.2
80°	73.9	73.9	73.9	73.9	70.9	67.8	67.8	64.7	64.7	61.6	55.5
82.5°	49.3	49.3	49.3	49.3	46.2	46.2	46.2	43.1	40.0	40.0	33.9
85°	33.9	33.9	30.8	30.8	30.8	30.8	27.7	27.7	24.6	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	9.2
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°	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0
2.5°	2193.4	2193.4	2190.3	2181.1	2184.2	2181.1	2184.2	2181.1	2171.9	2181.1	2171.9
5°	2205.7	2208.8	2202.7	2190.3	2193.4	2190.3	2190.3	2187.3	2178.0	2184.2	2178.0
7.5°	2218.1	2215.0	2211.9	2199.6	2202.7	2199.6	2199.6	2193.4	2184.2	2190.3	2181.1
10°	2224.2	2224.2	2218.1	2205.7	2205.7	2202.7	2205.7	2202.7	2190.3	2199.6	2193.4
12.5°	2224.2	2221.1	2221.1	2205.7	2208.8	2205.7	2208.8	2202.7	2193.4	2199.6	2196.5
15°	2215.0	2215.0	2211.9	2196.5	2199.6	2199.6	2202.7	2196.5	2187.3	2196.5	2190.3
17.5°	2196.5	2196.5	2193.4	2181.1	2187.3	2187.3	2190.3	2184.2	2174.9	2181.1	2181.1
20°	2159.5	2162.6	2162.6	2153.4	2159.5	2159.5	2162.6	2159.5	2156.5	2159.5	2153.4
22.5°	2116.4	2122.6	2122.6	2113.3	2119.5	2119.5	2128.7	2125.6	2119.5	2122.6	2119.5
25°	2051.7	2057.9	2064.0	2057.9	2064.0	2064.0	2073.3	2070.2	2064.0	2070.2	2061.0
27.5°	1977.8	1980.9	1987.0	1980.9	1990.1	1987.0	1996.3	1993.2	1983.9	1993.2	1990.1
30°	1873.0	1885.4	1894.6	1885.4	1894.6	1894.6	1900.8	1897.7	1894.6	1891.5	1891.5
32.5°	1756.0	1768.3	1768.3	1765.2	1771.4	1771.4	1774.5	1768.3	1765.2	1768.3	1771.4
35°	1611.2	1617.3	1623.5	1620.4	1623.5	1626.6	1623.5	1626.6	1617.3	1620.4	1620.4
37.5°	1454.1	1460.2	1460.2	1451.0	1457.1	1457.1	1451.0	1451.0	1444.8	1451.0	1438.7
40°	1287.7	1281.6	1284.6	1278.5	1272.3	1272.3	1269.2	1256.9	1250.7	1253.8	1256.9
42.5°	1124.4	1124.4	1115.2	1099.8	1084.4	1084.4	1075.1	1069.0	1056.7	1062.8	1059.7
45°	985.8	970.4	958.1	933.4	924.2	918.0	902.6	887.2	881.1	884.1	881.1
47.5°	853.3	841.0	810.2	776.3	767.1	757.8	739.4	720.9	714.7	708.5	708.5
50°	742.4	720.9	687.0	650.0	634.6	619.2	594.6	576.1	563.8	566.8	566.8
52.5°	640.8	616.1	576.1	529.9	511.4	492.9	471.3	449.8	440.5	437.5	437.5
55°	551.4	523.7	483.7	431.3	415.9	394.3	366.6	342.0	329.6	326.5	332.7
57.5°	471.3	446.7	400.5	348.1	329.6	308.1	280.3	258.8	243.4	240.3	243.4
60°	406.6	372.8	332.7	283.4	258.8	240.3	209.5	191.0	175.6	169.4	172.5
62.5°	342.0	311.1	271.1	221.8	203.3	184.8	157.1	135.5	123.2	120.1	123.2
65°	292.7	261.9	224.9	181.8	163.3	144.8	120.1	98.6	89.3	86.3	89.3
67.5°	243.4	215.6	184.8	144.8	129.4	114.0	89.3	73.9	61.6	58.5	61.6
70°	197.2	172.5	141.7	114.0	98.6	86.3	67.8	52.4	43.1	40.0	43.1
72.5°	147.9	129.4	107.8	83.2	73.9	64.7	49.3	37.0	30.8	27.7	30.8
75°	107.8	92.4	77.0	58.5	52.4	46.2	33.9	24.6	21.6	18.5	21.6
77.5°	73.9	64.7	52.4	40.0	33.9	30.8	21.6	18.5	15.4	12.3	12.3
80°	49.3	43.1	33.9	27.7	24.6	21.6	15.4	12.3	9.2	9.2	9.2
82.5°	30.8	24.6	21.6	15.4	12.3	12.3	9.2	6.2	6.2	6.2	6.2
85°	18.5	15.4	12.3	9.2	6.2	6.2	3.1	3.1	3.1	3.1	3.1
87.5°	9.2	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°	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0
2.5°	2178.0	2171.9	2171.9	2174.9	2178.0	2181.1	2174.9	2171.9	2171.9	2181.1	2174.9
5°	2178.0	2174.9	2174.9	2174.9	2181.1	2184.2	2178.0	2174.9	2178.0	2187.3	2184.2
7.5°	2187.3	2181.1	2184.2	2184.2	2187.3	2193.4	2187.3	2184.2	2187.3	2196.5	2190.3
10°	2193.4	2187.3	2190.3	2187.3	2196.5	2199.6	2193.4	2190.3	2193.4	2205.7	2202.7
12.5°	2196.5	2193.4	2193.4	2190.3	2199.6	2202.7	2196.5	2193.4	2196.5	2205.7	2202.7
15°	2190.3	2187.3	2187.3	2187.3	2193.4	2199.6	2190.3	2187.3	2187.3	2196.5	2193.4
17.5°	2178.0	2171.9	2171.9	2171.9	2174.9	2178.0	2168.8	2165.7	2162.6	2171.9	2168.8
20°	2156.5	2150.3	2144.1	2144.1	2147.2	2147.2	2141.1	2131.8	2131.8	2134.9	2128.7
22.5°	2116.4	2113.3	2107.2	2104.1	2110.2	2107.2	2094.8	2085.6	2082.5	2085.6	2079.4
25°	2061.0	2054.8	2051.7	2048.6	2051.7	2048.6	2036.3	2024.0	2024.0	2024.0	2014.7
27.5°	1983.9	1977.8	1974.7	1974.7	1977.8	1971.6	1959.3	1947.0	1940.8	1940.8	1931.6
30°	1885.4	1885.4	1882.3	1879.2	1876.1	1876.1	1857.6	1845.3	1839.1	1842.2	1836.1
32.5°	1765.2	1762.1	1759.1	1749.8	1752.9	1749.8	1734.4	1725.2	1715.9	1709.8	1706.7
35°	1611.2	1611.2	1608.1	1608.1	1608.1	1605.0	1589.6	1580.4	1574.2	1571.1	1561.9
37.5°	1441.7	1438.7	1435.6	1435.6	1435.6	1435.6	1426.3	1417.1	1417.1	1414.0	1407.9
40°	1250.7	1253.8	1256.9	1253.8	1263.1	1272.3	1260.0	1253.8	1250.7	1260.0	1247.7
42.5°	1065.9	1062.8	1078.2	1081.3	1081.3	1096.7	1099.8	1102.9	1099.8	1106.0	1106.0
45°	887.2	884.1	899.5	905.7	921.1	939.6	948.8	964.2	970.4	976.6	970.4
47.5°	717.8	730.1	742.4	757.8	770.2	801.0	819.5	834.9	841.0	850.3	850.3
50°	576.1	588.4	610.0	622.3	637.7	674.7	705.5	727.0	739.4	748.6	745.5
52.5°	443.6	465.2	492.9	505.2	526.8	569.9	603.8	628.5	643.9	653.1	656.2
55°	342.0	360.4	388.2	406.6	428.2	474.4	517.5	545.3	560.7	573.0	579.2
57.5°	252.6	274.2	305.0	320.4	345.0	397.4	434.4	468.3	486.7	502.1	505.2
60°	184.8	206.4	234.1	252.6	277.3	329.6	372.8	403.6	425.1	437.5	443.6
62.5°	132.5	154.0	181.8	200.2	221.8	268.0	311.1	342.0	363.5	378.9	388.2
65°	95.5	117.1	144.8	160.2	178.7	221.8	261.9	292.7	314.2	332.7	338.9
67.5°	70.9	86.3	110.9	126.3	144.8	178.7	212.6	240.3	261.9	277.3	283.4
70°	52.4	64.7	86.3	95.5	107.8	138.6	166.4	191.0	209.5	221.8	228.0
72.5°	37.0	46.2	61.6	70.9	80.1	104.7	126.3	144.8	157.1	169.4	175.6
75°	24.6	30.8	43.1	49.3	55.5	73.9	89.3	104.7	114.0	123.2	126.3
77.5°	15.4	21.6	30.8	33.9	40.0	49.3	61.6	70.9	77.0	83.2	89.3
80°	9.2	12.3	18.5	21.6	24.6	33.9	40.0	46.2	52.4	58.5	61.6
82.5°	6.2	9.2	12.3	12.3	15.4	18.5	24.6	30.8	33.9	37.0	40.0
85°	3.1	3.1	6.2	6.2	9.2	9.2	12.3	15.4	18.5	21.6	24.6
87.5°	3.1	3.1	3.1	3.1	6.2	6.2	9.2	9.2	9.2	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: P252721

CATALOG NUMBER: LD6B50D010TE EU6B30509035 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0	2178.0
2.5°	2168.8	2178.0	2168.8	2174.9	2171.9	2171.9	2168.8	2171.9
5°	2178.0	2190.3	2178.0	2187.3	2181.1	2181.1	2181.1	2184.2
7.5°	2187.3	2199.6	2190.3	2199.6	2196.5	2193.4	2193.4	2199.6
10°	2196.5	2205.7	2199.6	2208.8	2205.7	2202.7	2202.7	2208.8
12.5°	2196.5	2208.8	2202.7	2211.9	2208.8	2205.7	2205.7	2208.8
15°	2187.3	2202.7	2193.4	2202.7	2199.6	2196.5	2196.5	2202.7
17.5°	2159.5	2171.9	2165.7	2171.9	2171.9	2168.8	2171.9	2174.9
20°	2122.6	2131.8	2125.6	2131.8	2131.8	2125.6	2128.7	2131.8
22.5°	2070.2	2079.4	2073.3	2079.4	2076.4	2073.3	2073.3	2070.2
25°	2005.5	2017.8	2008.6	2014.7	2008.6	2002.4	2002.4	2005.5
27.5°	1925.4	1934.6	1922.3	1928.5	1922.3	1916.2	1916.2	1913.1
30°	1820.7	1823.7	1814.5	1820.7	1814.5	1811.4	1805.3	1805.3
32.5°	1694.4	1697.4	1688.2	1688.2	1682.0	1682.0	1669.7	1679.0
35°	1546.5	1549.6	1546.5	1543.4	1534.2	1531.1	1528.0	1528.0
37.5°	1392.5	1392.5	1383.2	1380.1	1374.0	1367.8	1370.9	1361.6
40°	1235.3	1232.3	1223.0	1226.1	1223.0	1213.8	1210.7	1207.6
42.5°	1087.5	1087.5	1078.2	1081.3	1075.1	1072.1	1062.8	1065.9
45°	958.1	958.1	948.8	948.8	945.8	936.5	939.6	933.4
47.5°	841.0	841.0	837.9	837.9	828.7	825.6	825.6	825.6
50°	739.4	739.4	739.4	739.4	736.3	733.2	730.1	733.2
52.5°	653.1	659.3	656.2	656.2	653.1	650.0	646.9	646.9
55°	576.1	579.2	579.2	582.2	579.2	576.1	579.2	576.1
57.5°	508.3	514.5	514.5	514.5	514.5	514.5	511.4	508.3
60°	449.8	452.9	452.9	455.9	455.9	455.9	452.9	452.9
62.5°	391.2	397.4	400.5	400.5	403.6	400.5	400.5	400.5
65°	345.0	351.2	354.3	351.2	354.3	354.3	351.2	351.2
67.5°	289.6	295.7	295.7	295.7	295.7	298.8	295.7	295.7
70°	234.1	240.3	237.2	240.3	240.3	240.3	240.3	240.3
72.5°	178.7	181.8	184.8	184.8	187.9	184.8	184.8	184.8
75°	129.4	135.5	135.5	135.5	135.5	138.6	138.6	138.6
77.5°	92.4	95.5	95.5	98.6	98.6	98.6	98.6	101.7
80°	64.7	64.7	67.8	67.8	70.9	70.9	70.9	70.9
82.5°	43.1	46.2	46.2	46.2	46.2	46.2	46.2	46.2
85°	24.6	27.7	27.7	27.7	27.7	30.8	30.8	30.8
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)