

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: P252307

Luminaire Tested: **LD6B50D010TE EU6B30509050 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252307  
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 EU6B30509050 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4305.0 lumens  
Efficiency: N/A  
Efficacy: 73.3 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

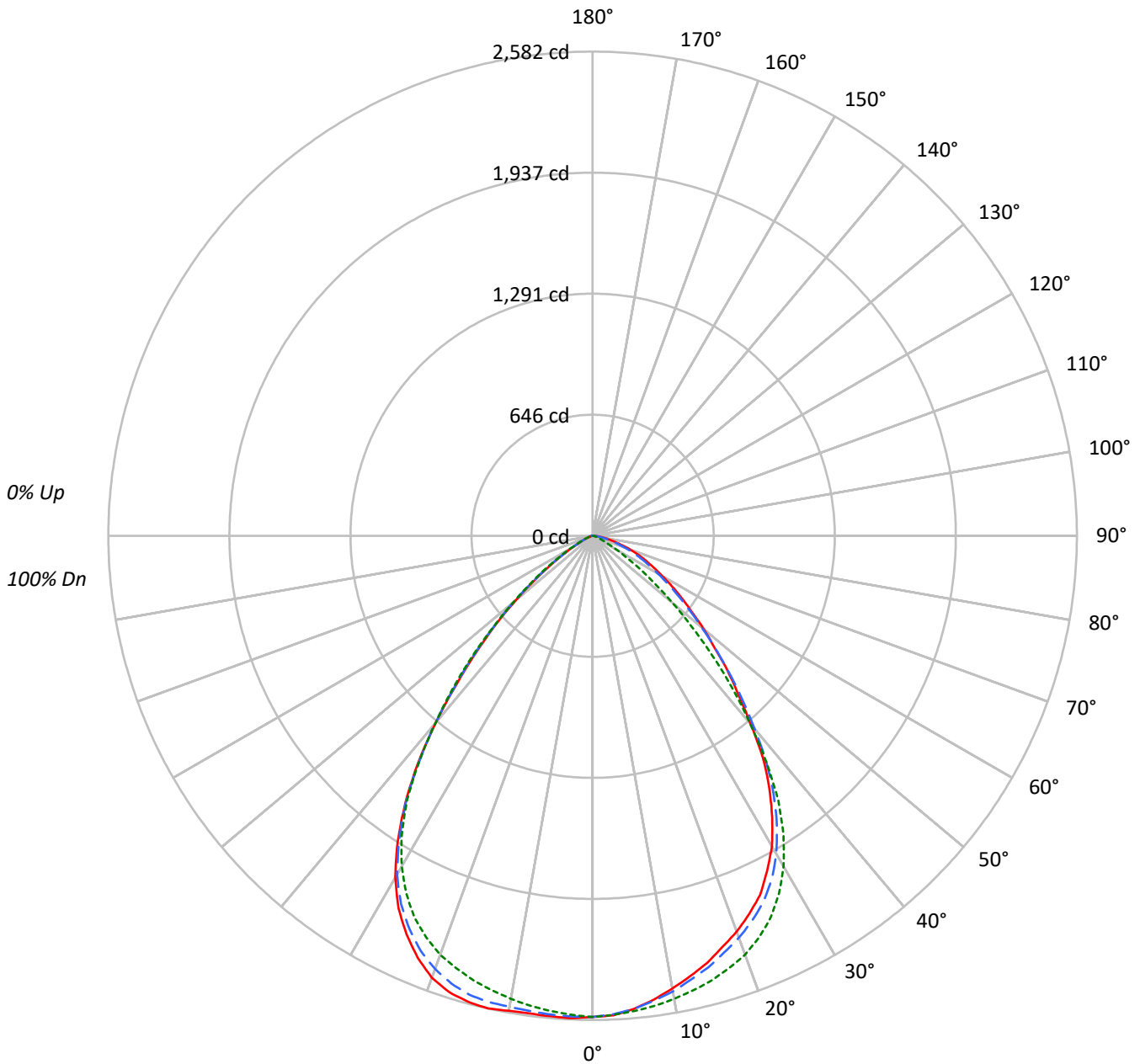
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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°	167407	167407	167407
5°	165820	166632	168453
10°	162398	166095	170401
15°	159291	165782	173732
20°	155990	165029	174069
25°	152148	161736	168877
30°	144045	153386	158524
35°	130815	137482	138716
40°	111644	111116	110588
45°	93787	83204	80630
50°	78325	56300	53468
55°	65914	34544	31370
60°	55807	18202	15775
65°	48319	9571	7657
70°	40191	5913	4139
75°	29694	3907	2344
80°	23294	2329	1165
85°	18564	2321	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.8	5.6
10°-20°	692.4	16.1
20°-30°	1022.5	23.8
30°-40°	1053.8	24.5
40°-50°	727.8	16.9
50°-60°	358.7	8.3
60°-70°	145.4	3.4
70°-80°	51.8	1.2
80°-90°	10.7	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°	1956.8	45.5
0°-40°	3010.6	69.9
0°-60°	4097.1	95.2
0°-90°	4305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4305.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2566	2566	2566	2566	2566	
5°	2532	2532	2544	2563	2572	239
15°	2358	2383	2454	2535	2572	664
25°	2114	2154	2247	2312	2346	966
35°	1642	1683	1726	1736	1742	1018
45°	1016	1023	902	889	874	786
55°	580	558	304	285	276	524
65°	313	282	62	50	50	311
75°	118	99	16	9	9	132
85°	25	19	3	0	0	30
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°	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0
2.5°	2559.8	2550.5	2556.7	2544.4	2559.8	2544.4	2547.5	2550.5	2547.5	2550.5	2553.6
5°	2532.0	2522.7	2532.0	2516.5	2532.0	2522.7	2522.7	2525.8	2525.8	2528.9	2532.0
7.5°	2494.8	2485.5	2494.8	2479.3	2497.9	2488.6	2488.6	2494.8	2491.7	2494.8	2501.0
10°	2451.4	2439.0	2448.3	2439.0	2457.6	2445.2	2451.4	2451.4	2451.4	2460.7	2466.9
12.5°	2404.9	2392.5	2404.9	2389.4	2408.0	2398.7	2401.8	2411.1	2414.2	2420.4	2423.5
15°	2358.4	2342.9	2349.1	2339.8	2358.4	2349.1	2352.2	2364.6	2364.6	2373.9	2383.2
17.5°	2299.5	2287.1	2299.5	2287.1	2302.6	2296.4	2302.6	2311.9	2311.9	2321.2	2330.5
20°	2246.8	2234.4	2243.7	2234.4	2253.0	2243.7	2246.8	2259.2	2262.3	2271.6	2280.9
22.5°	2181.8	2172.5	2178.7	2169.4	2188.0	2181.8	2184.9	2197.3	2200.4	2206.6	2222.0
25°	2113.6	2095.0	2104.3	2098.1	2116.7	2107.4	2113.6	2126.0	2132.2	2141.5	2153.9
27.5°	2014.4	2005.1	2011.3	2011.3	2026.8	2017.5	2020.6	2033.0	2042.3	2051.6	2067.1
30°	1912.1	1896.6	1902.8	1905.9	1918.3	1912.1	1918.3	1930.7	1933.8	1946.2	1958.6
32.5°	1782.0	1775.8	1788.2	1782.0	1788.2	1788.2	1791.3	1800.6	1806.8	1813.0	1828.5
35°	1642.5	1630.1	1642.5	1636.3	1651.8	1642.5	1651.8	1661.1	1661.1	1673.5	1682.8
37.5°	1490.7	1475.2	1481.4	1481.4	1487.6	1484.5	1484.5	1500.0	1503.1	1512.4	1521.7
40°	1310.9	1304.7	1317.1	1314.0	1317.1	1317.1	1320.2	1329.5	1335.7	1338.8	1341.9
42.5°	1149.8	1152.9	1156.0	1156.0	1156.0	1156.0	1156.0	1168.4	1165.3	1174.6	1177.7
45°	1016.5	1004.1	1010.3	1007.2	1016.5	1007.2	1016.5	1025.8	1019.6	1028.9	1022.7
47.5°	880.1	880.1	880.1	877.0	883.2	880.1	886.3	889.4	889.4	889.4	886.3
50°	771.7	762.4	765.5	765.5	768.6	765.5	771.7	774.8	774.8	768.6	756.2
52.5°	666.3	663.2	663.2	669.4	669.4	666.3	666.3	666.3	666.3	657.0	650.8
55°	579.5	573.3	576.4	576.4	576.4	576.4	579.5	576.4	576.4	567.1	557.8
57.5°	502.1	495.9	495.9	495.9	499.0	495.9	495.9	495.9	492.8	483.5	471.1
60°	427.7	424.6	427.7	427.7	430.8	427.7	427.7	427.7	421.5	412.2	399.8
62.5°	365.7	365.7	365.7	368.8	368.8	365.7	365.7	362.6	359.5	347.1	334.7
65°	313.0	309.9	313.0	313.0	316.1	316.1	313.0	309.9	306.8	294.4	282.0
67.5°	260.3	257.2	260.3	260.3	263.4	260.3	260.3	260.3	251.0	244.8	232.4
70°	210.7	207.6	207.6	207.6	210.7	204.5	207.6	207.6	201.4	192.1	179.7
72.5°	161.2	161.2	161.2	161.2	161.2	161.2	158.1	158.1	151.9	142.6	136.4
75°	117.8	117.8	120.9	120.9	117.8	117.8	117.8	114.7	111.6	105.4	99.2
77.5°	86.8	86.8	86.8	86.8	83.7	83.7	83.7	80.6	77.5	74.4	68.2
80°	62.0	62.0	62.0	58.9	62.0	58.9	58.9	58.9	52.7	49.6	46.5
82.5°	43.4	40.3	40.3	40.3	40.3	40.3	40.3	37.2	37.2	34.1	31.0
85°	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	21.7	18.6	18.6
87.5°	12.4	15.5	15.5	15.5	15.5	15.5	15.5	12.4	12.4	12.4	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°	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0
2.5°	2553.6	2553.6	2559.8	2550.5	2566.0	2556.7	2553.6	2569.1	2559.8	2556.7	2562.9
5°	2532.0	2535.1	2538.2	2532.0	2547.5	2538.2	2538.2	2553.6	2547.5	2544.4	2553.6
7.5°	2504.1	2507.2	2513.4	2510.3	2522.7	2516.5	2519.6	2535.1	2528.9	2528.9	2538.2
10°	2470.0	2476.2	2482.4	2482.4	2497.9	2491.7	2491.7	2510.3	2504.1	2507.2	2519.6
12.5°	2429.7	2439.0	2448.3	2451.4	2466.9	2457.6	2460.7	2482.4	2479.3	2482.4	2494.8
15°	2386.3	2398.7	2408.0	2408.0	2426.6	2417.3	2426.6	2448.3	2442.1	2454.5	2470.0
17.5°	2336.7	2349.1	2361.5	2364.6	2383.2	2377.0	2389.4	2411.1	2411.1	2417.3	2435.9
20°	2290.2	2305.7	2311.9	2321.2	2339.8	2336.7	2342.9	2367.7	2367.7	2377.0	2395.6
22.5°	2228.2	2243.7	2256.1	2265.4	2280.9	2280.9	2290.2	2311.9	2311.9	2318.1	2336.7
25°	2160.1	2178.7	2188.0	2197.3	2212.7	2209.6	2218.9	2237.5	2240.6	2246.8	2265.4
27.5°	2073.3	2088.8	2101.2	2107.4	2129.1	2116.7	2126.0	2147.7	2144.6	2150.8	2166.3
30°	1964.8	1980.3	1992.7	1992.7	2011.3	2011.3	2020.6	2029.9	2029.9	2036.1	2048.5
32.5°	1837.8	1856.4	1856.4	1865.7	1878.0	1865.7	1878.0	1890.4	1884.2	1893.5	1902.8
35°	1692.1	1701.4	1704.5	1704.5	1713.8	1710.7	1707.6	1716.9	1710.7	1726.2	1735.5
37.5°	1515.5	1527.9	1521.7	1527.9	1524.8	1515.5	1515.5	1530.9	1518.6	1521.7	1530.9
40°	1345.0	1345.0	1341.9	1326.4	1329.5	1320.2	1317.1	1320.2	1307.8	1304.7	1317.1
42.5°	1168.4	1165.3	1156.0	1134.3	1137.4	1121.9	1109.5	1109.5	1103.3	1100.2	1103.3
45°	1010.3	1001.0	985.5	960.7	954.5	942.1	917.3	911.1	901.8	901.8	904.9
47.5°	864.6	852.2	827.5	799.6	784.1	768.6	743.8	734.5	719.0	712.8	719.0
50°	743.8	722.1	691.1	650.8	635.3	616.7	591.9	576.4	560.9	554.7	551.6
52.5°	632.2	601.2	570.2	520.6	508.3	489.7	455.6	440.1	424.6	412.2	412.2
55°	536.1	508.3	464.9	418.4	399.8	381.2	347.1	325.4	309.9	303.7	297.5
57.5°	449.4	418.4	378.1	328.5	309.9	291.3	257.2	235.5	220.0	210.7	204.5
60°	378.1	344.0	303.7	260.3	238.6	220.0	185.9	164.3	148.8	139.5	133.3
62.5°	309.9	282.0	241.7	201.4	182.8	164.3	136.4	114.7	99.2	93.0	83.7
65°	260.3	232.4	195.2	161.2	145.7	127.1	102.3	83.7	71.3	62.0	55.8
67.5°	210.7	189.0	158.1	127.1	111.6	99.2	77.5	62.0	49.6	43.4	40.3
70°	167.4	145.7	120.9	96.1	86.8	74.4	58.9	43.4	37.2	31.0	27.9
72.5°	124.0	108.5	89.9	71.3	62.0	55.8	40.3	34.1	24.8	21.7	18.6
75°	89.9	77.5	65.1	49.6	43.4	40.3	31.0	21.7	18.6	15.5	12.4
77.5°	62.0	55.8	43.4	34.1	31.0	27.9	21.7	15.5	12.4	9.3	9.3
80°	40.3	34.1	27.9	21.7	21.7	18.6	12.4	9.3	9.3	6.2	6.2
82.5°	24.8	21.7	18.6	15.5	12.4	12.4	9.3	6.2	6.2	3.1	3.1
85°	15.5	12.4	9.3	9.3	6.2	6.2	6.2	3.1	3.1	3.1	3.1
87.5°	6.2	6.2	6.2	3.1	3.1	3.1	3.1	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°	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0
2.5°	2562.9	2562.9	2569.1	2559.8	2566.0	2566.0	2572.2	2559.8	2566.0	2569.1	2575.3
5°	2550.5	2553.6	2559.8	2556.7	2559.8	2559.8	2566.0	2550.5	2562.9	2562.9	2572.2
7.5°	2538.2	2538.2	2544.4	2541.3	2547.5	2550.5	2556.7	2544.4	2556.7	2556.7	2566.0
10°	2522.7	2522.7	2532.0	2528.9	2538.2	2541.3	2550.5	2538.2	2550.5	2553.6	2562.9
12.5°	2501.0	2504.1	2513.4	2513.4	2522.7	2528.9	2538.2	2532.0	2547.5	2550.5	2562.9
15°	2476.2	2482.4	2494.8	2491.7	2501.0	2510.3	2522.7	2513.4	2535.1	2541.3	2553.6
17.5°	2445.2	2451.4	2460.7	2460.7	2470.0	2476.2	2491.7	2485.5	2504.1	2507.2	2522.7
20°	2398.7	2408.0	2420.4	2417.3	2426.6	2432.8	2445.2	2439.0	2457.6	2463.8	2479.3
22.5°	2342.9	2349.1	2358.4	2358.4	2367.7	2373.9	2386.3	2377.0	2395.6	2398.7	2411.1
25°	2268.5	2274.7	2280.9	2284.0	2293.3	2296.4	2302.6	2296.4	2311.9	2315.0	2330.5
27.5°	2172.5	2175.6	2184.9	2184.9	2191.1	2194.2	2203.5	2191.1	2212.7	2212.7	2222.0
30°	2057.8	2054.7	2067.1	2060.9	2067.1	2067.1	2076.4	2070.2	2085.7	2079.5	2088.8
32.5°	1905.9	1912.1	1912.1	1905.9	1918.3	1915.2	1915.2	1909.0	1918.3	1921.4	1927.6
35°	1729.3	1738.6	1738.6	1741.7	1744.8	1735.5	1738.6	1720.0	1735.5	1738.6	1741.7
37.5°	1537.1	1527.9	1534.0	1524.8	1540.2	1521.7	1521.7	1509.3	1521.7	1521.7	1524.8
40°	1317.1	1314.0	1320.2	1314.0	1310.9	1307.8	1301.6	1292.3	1304.7	1298.5	1307.8
42.5°	1109.5	1106.4	1106.4	1100.2	1097.1	1097.1	1090.9	1084.7	1081.6	1081.6	1097.1
45°	895.6	901.8	895.6	892.5	898.7	892.5	895.6	883.2	889.4	883.2	889.4
47.5°	715.9	719.0	712.8	706.6	715.9	706.6	706.6	697.3	709.7	709.7	703.5
50°	554.7	551.6	545.4	551.6	548.5	548.5	548.5	539.2	545.4	536.1	542.3
52.5°	409.1	406.0	406.0	402.9	406.0	402.9	402.9	399.8	399.8	396.7	399.8
55°	297.5	294.4	288.2	288.2	288.2	291.3	288.2	285.1	285.1	282.0	285.1
57.5°	201.4	195.2	195.2	195.2	195.2	192.1	192.1	189.0	192.1	189.0	192.1
60°	130.2	130.2	124.0	124.0	124.0	124.0	124.0	120.9	124.0	124.0	124.0
62.5°	80.6	80.6	77.5	74.4	77.5	74.4	74.4	74.4	77.5	74.4	77.5
65°	52.7	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6
67.5°	37.2	34.1	34.1	34.1	34.1	34.1	34.1	31.0	34.1	34.1	34.1
70°	24.8	24.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
72.5°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
75°	12.4	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
77.5°	9.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
80°	6.2	6.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
85°	3.1	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	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	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





TEST NUMBER: P252307

CATALOG NUMBER: LD6B50D010TE EU6B30509050 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0	2566.0
2.5°	2566.0	2569.1	2562.9	2566.0	2559.8	2566.0	2569.1	2575.3
5°	2559.8	2562.9	2556.7	2562.9	2556.7	2562.9	2566.0	2572.2
7.5°	2553.6	2559.8	2553.6	2559.8	2553.6	2559.8	2562.9	2569.1
10°	2553.6	2562.9	2556.7	2566.0	2556.7	2562.9	2569.1	2572.2
12.5°	2553.6	2562.9	2559.8	2566.0	2562.9	2569.1	2575.3	2581.5
15°	2547.5	2556.7	2550.5	2559.8	2556.7	2559.8	2572.2	2572.2
17.5°	2513.4	2522.7	2522.7	2528.9	2528.9	2538.2	2544.4	2550.5
20°	2470.0	2479.3	2476.2	2485.5	2485.5	2494.8	2501.0	2507.2
22.5°	2404.9	2417.3	2414.2	2423.5	2420.4	2426.6	2439.0	2435.9
25°	2321.2	2336.7	2333.6	2339.8	2336.7	2336.7	2342.9	2346.0
27.5°	2218.9	2228.2	2225.1	2231.3	2225.1	2231.3	2237.5	2240.6
30°	2085.7	2091.9	2088.8	2091.9	2088.8	2095.0	2098.1	2104.3
32.5°	1924.5	1933.8	1924.5	1930.7	1927.6	1927.6	1940.0	1933.8
35°	1732.4	1735.5	1738.6	1738.6	1732.4	1735.5	1741.7	1741.7
37.5°	1518.6	1534.0	1515.5	1524.8	1521.7	1521.7	1521.7	1530.9
40°	1295.4	1298.5	1292.3	1292.3	1292.3	1289.2	1301.6	1298.5
42.5°	1084.7	1087.8	1084.7	1075.4	1078.5	1078.5	1087.8	1075.4
45°	880.1	886.3	883.2	883.2	877.0	877.0	880.1	873.9
47.5°	697.3	703.5	694.2	697.3	691.1	697.3	694.2	700.4
50°	529.9	536.1	533.0	536.1	536.1	529.9	539.2	526.8
52.5°	396.7	399.8	396.7	393.6	390.5	390.5	396.7	393.6
55°	282.0	278.9	278.9	278.9	282.0	282.0	278.9	275.8
57.5°	189.0	189.0	185.9	185.9	189.0	182.8	185.9	182.8
60°	120.9	120.9	120.9	120.9	117.8	120.9	120.9	120.9
62.5°	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
65°	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6
67.5°	31.0	34.1	34.1	34.1	31.0	31.0	31.0	31.0
70°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
72.5°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
75°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
77.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	3.1	3.1	3.1	3.1	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)