

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: P252306

Luminaire Tested: **LD6B50D010TE EU6B30509040 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252306  
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 EU6B30509040 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE 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: 4287.0 lumens  
Efficiency: N/A  
Efficacy: 72.9 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

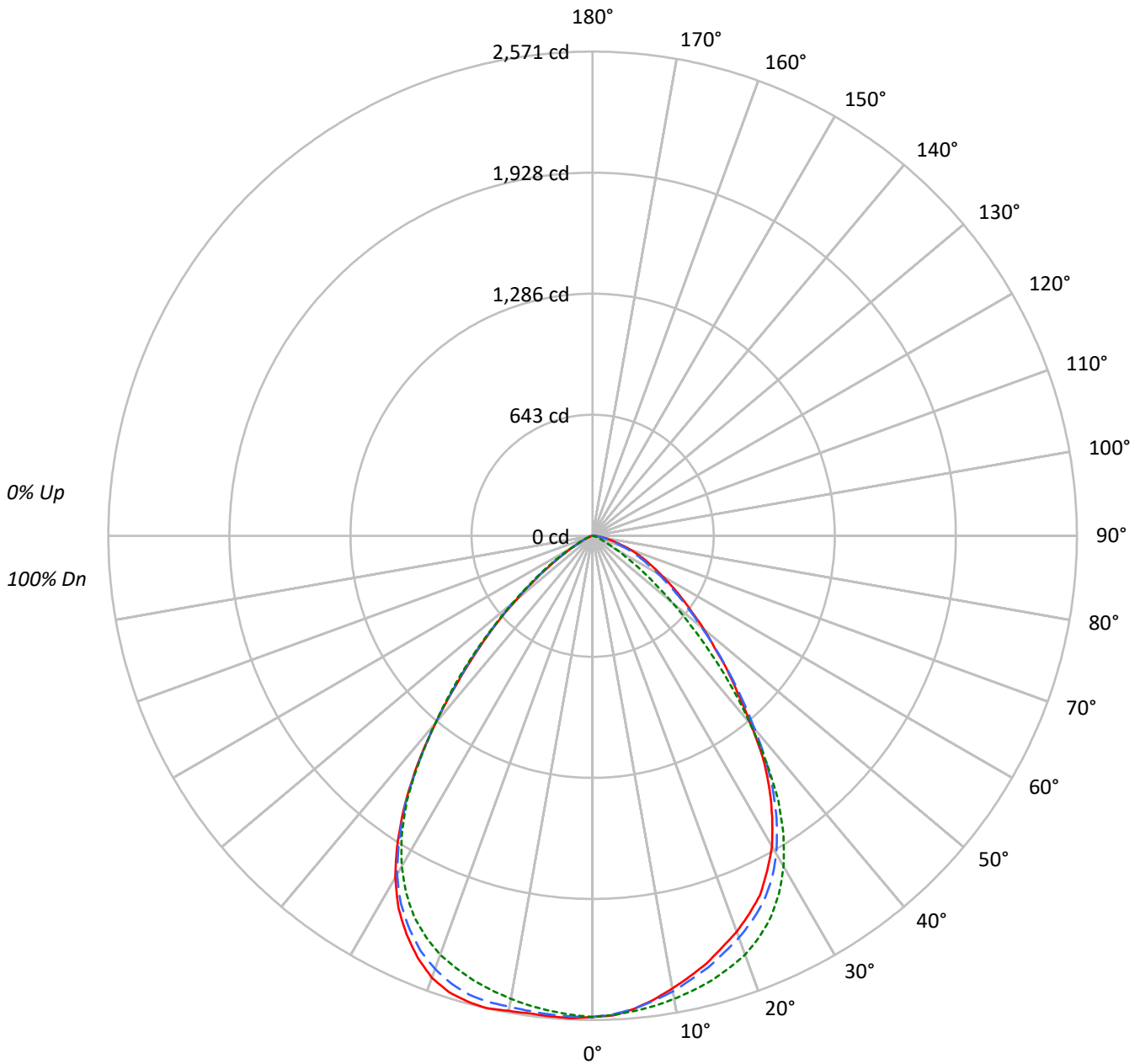
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	166709	166709	166709
5°	165126	165932	167752
10°	161716	165399	169692
15°	158623	165086	173009
20°	155337	164342	173340
25°	151507	161059	168172
30°	143442	152746	157861
35°	130266	136908	138135
40°	111175	110656	110128
45°	93399	82862	80298
50°	77990	56067	53245
55°	65641	34396	31245
60°	55572	18124	15710
65°	48118	9525	7626
70°	40039	5894	4120
75°	29568	3882	2344
80°	23181	2329	1165
85°	18489	2321	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.8	5.6
10°-20°	689.5	16.1
20°-30°	1018.2	23.8
30°-40°	1049.4	24.5
40°-50°	724.8	16.9
50°-60°	357.2	8.3
60°-70°	144.8	3.4
70°-80°	51.6	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°	1948.6	45.5
0°-40°	2998.0	69.9
0°-60°	4080.0	95.2
0°-90°	4287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4287.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2555	2555	2555	2555	2555	
5°	2521	2521	2534	2552	2562	238
15°	2348	2373	2444	2524	2562	661
25°	2105	2145	2237	2302	2336	962
35°	1636	1676	1719	1728	1734	1013
45°	1012	1018	898	886	870	782
55°	577	556	302	284	275	521
65°	312	281	62	49	49	310
75°	117	99	15	9	9	132
85°	25	18	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°	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3
2.5°	2549.1	2539.9	2546.1	2533.7	2549.1	2533.7	2536.8	2539.9	2536.8	2539.9	2543.0
5°	2521.4	2512.1	2521.4	2505.9	2521.4	2512.1	2512.1	2515.2	2515.2	2518.3	2521.4
7.5°	2484.3	2475.1	2484.3	2468.9	2487.4	2478.2	2478.2	2484.3	2481.2	2484.3	2490.5
10°	2441.1	2428.8	2438.0	2428.8	2447.3	2435.0	2441.1	2441.1	2441.1	2450.4	2456.6
12.5°	2394.8	2382.5	2394.8	2379.4	2397.9	2388.7	2391.8	2401.0	2404.1	2410.3	2413.4
15°	2348.5	2333.1	2339.3	2330.0	2348.5	2339.3	2342.4	2354.7	2354.7	2364.0	2373.2
17.5°	2289.9	2277.6	2289.9	2277.6	2293.0	2286.8	2293.0	2302.3	2302.3	2311.5	2320.8
20°	2237.4	2225.1	2234.4	2225.1	2243.6	2234.4	2237.4	2249.8	2252.9	2262.1	2271.4
22.5°	2172.6	2163.4	2169.5	2160.3	2178.8	2172.6	2175.7	2188.1	2191.2	2197.3	2212.8
25°	2104.7	2086.2	2095.5	2089.3	2107.8	2098.6	2104.7	2117.1	2123.3	2132.5	2144.9
27.5°	2006.0	1996.7	2002.9	2002.9	2018.3	2009.1	2012.2	2024.5	2033.8	2043.0	2058.4
30°	1904.1	1888.7	1894.9	1898.0	1910.3	1904.1	1910.3	1922.7	1925.7	1938.1	1950.4
32.5°	1774.5	1768.4	1780.7	1774.5	1780.7	1780.7	1783.8	1793.0	1799.2	1805.4	1820.8
35°	1635.6	1623.3	1635.6	1629.5	1644.9	1635.6	1644.9	1654.2	1654.2	1666.5	1675.8
37.5°	1484.4	1469.0	1475.2	1475.2	1481.3	1478.3	1478.3	1493.7	1496.8	1506.0	1515.3
40°	1305.4	1299.3	1311.6	1308.5	1311.6	1311.6	1314.7	1323.9	1330.1	1333.2	1336.3
42.5°	1145.0	1148.0	1151.1	1151.1	1151.1	1151.1	1151.1	1163.5	1160.4	1169.6	1172.7
45°	1012.3	999.9	1006.1	1003.0	1012.3	1003.0	1012.3	1021.5	1015.3	1024.6	1018.4
47.5°	876.5	876.5	876.5	873.4	879.5	876.5	882.6	885.7	885.7	885.7	882.6
50°	768.4	759.2	762.3	762.3	765.4	762.3	768.4	771.5	771.5	765.4	753.0
52.5°	663.5	660.4	660.4	666.6	666.6	663.5	663.5	663.5	663.5	654.3	648.1
55°	577.1	570.9	574.0	574.0	574.0	574.0	577.1	574.0	574.0	564.8	555.5
57.5°	500.0	493.8	493.8	493.8	496.9	493.8	493.8	493.8	490.7	481.4	469.1
60°	425.9	422.8	425.9	425.9	429.0	425.9	425.9	425.9	419.7	410.5	398.1
62.5°	364.2	364.2	364.2	367.2	367.2	364.2	364.2	361.1	358.0	345.6	333.3
65°	311.7	308.6	311.7	311.7	314.8	314.8	311.7	308.6	305.5	293.2	280.8
67.5°	259.2	256.1	259.2	259.2	262.3	259.2	259.2	259.2	250.0	243.8	231.5
70°	209.9	206.8	206.8	206.8	209.9	203.7	206.8	206.8	200.6	191.3	179.0
72.5°	160.5	160.5	160.5	160.5	160.5	160.5	157.4	157.4	151.2	142.0	135.8
75°	117.3	117.3	120.4	120.4	117.3	117.3	117.3	114.2	111.1	104.9	98.8
77.5°	86.4	86.4	86.4	86.4	83.3	83.3	83.3	80.2	77.2	74.1	67.9
80°	61.7	61.7	61.7	58.6	61.7	58.6	58.6	58.6	52.5	49.4	46.3
82.5°	43.2	40.1	40.1	40.1	40.1	40.1	40.1	37.0	37.0	33.9	30.9
85°	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	21.6	18.5	18.5
87.5°	12.3	15.4	15.4	15.4	15.4	15.4	15.4	12.3	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°	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3
2.5°	2543.0	2543.0	2549.1	2539.9	2555.3	2546.1	2543.0	2558.4	2549.1	2546.1	2552.2
5°	2521.4	2524.5	2527.5	2521.4	2536.8	2527.5	2527.5	2543.0	2536.8	2533.7	2543.0
7.5°	2493.6	2496.7	2502.9	2499.8	2512.1	2505.9	2509.0	2524.5	2518.3	2518.3	2527.5
10°	2459.6	2465.8	2472.0	2472.0	2487.4	2481.2	2481.2	2499.8	2493.6	2496.7	2509.0
12.5°	2419.5	2428.8	2438.0	2441.1	2456.6	2447.3	2450.4	2472.0	2468.9	2472.0	2484.3
15°	2376.3	2388.7	2397.9	2397.9	2416.4	2407.2	2416.4	2438.0	2431.9	2444.2	2459.6
17.5°	2326.9	2339.3	2351.6	2354.7	2373.2	2367.1	2379.4	2401.0	2401.0	2407.2	2425.7
20°	2280.7	2296.1	2302.3	2311.5	2330.0	2326.9	2333.1	2357.8	2357.8	2367.1	2385.6
22.5°	2218.9	2234.4	2246.7	2256.0	2271.4	2271.4	2280.7	2302.3	2302.3	2308.4	2326.9
25°	2151.0	2169.5	2178.8	2188.1	2203.5	2200.4	2209.7	2228.2	2231.3	2237.4	2256.0
27.5°	2064.6	2080.1	2092.4	2098.6	2120.2	2107.8	2117.1	2138.7	2135.6	2141.8	2157.2
30°	1956.6	1972.0	1984.4	1984.4	2002.9	2002.9	2012.2	2021.4	2021.4	2027.6	2039.9
32.5°	1830.1	1848.6	1848.6	1857.9	1870.2	1857.9	1870.2	1882.5	1876.4	1885.6	1894.9
35°	1685.0	1694.3	1697.4	1697.4	1706.6	1703.5	1700.5	1709.7	1703.5	1719.0	1728.2
37.5°	1509.1	1521.5	1515.3	1521.5	1518.4	1509.1	1509.1	1524.5	1512.2	1515.3	1524.5
40°	1339.4	1339.4	1336.3	1320.9	1323.9	1314.7	1311.6	1314.7	1302.3	1299.3	1311.6
42.5°	1163.5	1160.4	1151.1	1129.5	1132.6	1117.2	1104.8	1104.8	1098.7	1095.6	1098.7
45°	1006.1	996.8	981.4	956.7	950.5	938.2	913.5	907.3	898.1	898.1	901.2
47.5°	861.0	848.7	824.0	796.2	780.8	765.4	740.7	731.4	716.0	709.8	716.0
50°	740.7	719.1	688.2	648.1	632.7	614.1	589.5	574.0	558.6	552.4	549.3
52.5°	629.6	598.7	567.8	518.5	506.1	487.6	453.7	438.2	422.8	410.5	410.5
55°	533.9	506.1	462.9	416.6	398.1	379.6	345.6	324.0	308.6	302.4	296.3
57.5°	447.5	416.6	376.5	327.1	308.6	290.1	256.1	234.5	219.1	209.9	203.7
60°	376.5	342.6	302.4	259.2	237.6	219.1	185.2	163.6	148.1	138.9	132.7
62.5°	308.6	280.8	240.7	200.6	182.1	163.6	135.8	114.2	98.8	92.6	83.3
65°	259.2	231.5	194.4	160.5	145.0	126.5	101.8	83.3	71.0	61.7	55.6
67.5°	209.9	188.3	157.4	126.5	111.1	98.8	77.2	61.7	49.4	43.2	40.1
70°	166.7	145.0	120.4	95.7	86.4	74.1	58.6	43.2	37.0	30.9	27.8
72.5°	123.4	108.0	89.5	71.0	61.7	55.6	40.1	33.9	24.7	21.6	18.5
75°	89.5	77.2	64.8	49.4	43.2	40.1	30.9	21.6	18.5	15.4	12.3
77.5°	61.7	55.6	43.2	33.9	30.9	27.8	21.6	15.4	12.3	9.3	9.3
80°	40.1	33.9	27.8	21.6	21.6	18.5	12.3	9.3	9.3	6.2	6.2
82.5°	24.7	21.6	18.5	15.4	12.3	12.3	9.3	6.2	6.2	3.1	3.1
85°	15.4	12.3	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°	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3
2.5°	2552.2	2552.2	2558.4	2549.1	2555.3	2555.3	2561.5	2549.1	2555.3	2558.4	2564.6
5°	2539.9	2543.0	2549.1	2546.1	2549.1	2549.1	2555.3	2539.9	2552.2	2552.2	2561.5
7.5°	2527.5	2527.5	2533.7	2530.6	2536.8	2539.9	2546.1	2533.7	2546.1	2546.1	2555.3
10°	2512.1	2512.1	2521.4	2518.3	2527.5	2530.6	2539.9	2527.5	2539.9	2543.0	2552.2
12.5°	2490.5	2493.6	2502.9	2502.9	2512.1	2518.3	2527.5	2521.4	2536.8	2539.9	2552.2
15°	2465.8	2472.0	2484.3	2481.2	2490.5	2499.8	2512.1	2502.9	2524.5	2530.6	2543.0
17.5°	2435.0	2441.1	2450.4	2450.4	2459.6	2465.8	2481.2	2475.1	2493.6	2496.7	2512.1
20°	2388.7	2397.9	2410.3	2407.2	2416.4	2422.6	2435.0	2428.8	2447.3	2453.5	2468.9
22.5°	2333.1	2339.3	2348.5	2348.5	2357.8	2364.0	2376.3	2367.1	2385.6	2388.7	2401.0
25°	2259.0	2265.2	2271.4	2274.5	2283.7	2286.8	2293.0	2286.8	2302.3	2305.3	2320.8
27.5°	2163.4	2166.5	2175.7	2175.7	2181.9	2185.0	2194.2	2181.9	2203.5	2203.5	2212.8
30°	2049.2	2046.1	2058.4	2052.3	2058.4	2058.4	2067.7	2061.5	2077.0	2070.8	2080.1
32.5°	1898.0	1904.1	1904.1	1898.0	1910.3	1907.2	1907.2	1901.1	1910.3	1913.4	1919.6
35°	1722.1	1731.3	1731.3	1734.4	1737.5	1728.2	1731.3	1712.8	1728.2	1731.3	1734.4
37.5°	1530.7	1521.5	1527.6	1518.4	1533.8	1515.3	1515.3	1502.9	1515.3	1515.3	1518.4
40°	1311.6	1308.5	1314.7	1308.5	1305.4	1302.3	1296.2	1286.9	1299.3	1293.1	1302.3
42.5°	1104.8	1101.7	1101.7	1095.6	1092.5	1092.5	1086.3	1080.1	1077.1	1077.1	1092.5
45°	891.9	898.1	891.9	888.8	895.0	888.8	891.9	879.5	885.7	879.5	885.7
47.5°	712.9	716.0	709.8	703.6	712.9	703.6	703.6	694.4	706.7	706.7	700.6
50°	552.4	549.3	543.2	549.3	546.2	546.2	546.2	537.0	543.2	533.9	540.1
52.5°	407.4	404.3	404.3	401.2	404.3	401.2	401.2	398.1	398.1	395.0	398.1
55°	296.3	293.2	287.0	287.0	287.0	290.1	287.0	283.9	283.9	280.8	283.9
57.5°	200.6	194.4	194.4	194.4	194.4	191.3	191.3	188.3	191.3	188.3	191.3
60°	129.6	129.6	123.4	123.4	123.4	123.4	123.4	120.4	123.4	123.4	123.4
62.5°	80.2	80.2	77.2	74.1	77.2	74.1	74.1	74.1	77.2	74.1	77.2
65°	52.5	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
67.5°	37.0	33.9	33.9	33.9	33.9	33.9	33.9	30.9	33.9	33.9	33.9
70°	24.7	24.7	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
72.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
75°	12.3	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: P252306

CATALOG NUMBER: LD6B50D010TE EU6B30509040 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3	2555.3
2.5°	2555.3	2558.4	2552.2	2555.3	2549.1	2555.3	2558.4	2564.6
5°	2549.1	2552.2	2546.1	2552.2	2546.1	2552.2	2555.3	2561.5
7.5°	2543.0	2549.1	2543.0	2549.1	2543.0	2549.1	2552.2	2558.4
10°	2543.0	2552.2	2546.1	2555.3	2546.1	2552.2	2558.4	2561.5
12.5°	2543.0	2552.2	2549.1	2555.3	2552.2	2558.4	2564.6	2570.7
15°	2536.8	2546.1	2539.9	2549.1	2546.1	2549.1	2561.5	2561.5
17.5°	2502.9	2512.1	2512.1	2518.3	2518.3	2527.5	2533.7	2539.9
20°	2459.6	2468.9	2465.8	2475.1	2475.1	2484.3	2490.5	2496.7
22.5°	2394.8	2407.2	2404.1	2413.4	2410.3	2416.4	2428.8	2425.7
25°	2311.5	2326.9	2323.9	2330.0	2326.9	2326.9	2333.1	2336.2
27.5°	2209.7	2218.9	2215.8	2222.0	2215.8	2222.0	2228.2	2231.3
30°	2077.0	2083.1	2080.1	2083.1	2080.1	2086.2	2089.3	2095.5
32.5°	1916.5	1925.7	1916.5	1922.7	1919.6	1919.6	1931.9	1925.7
35°	1725.1	1728.2	1731.3	1731.3	1725.1	1728.2	1734.4	1734.4
37.5°	1512.2	1527.6	1509.1	1518.4	1515.3	1515.3	1515.3	1524.5
40°	1290.0	1293.1	1286.9	1286.9	1286.9	1283.8	1296.2	1293.1
42.5°	1080.1	1083.2	1080.1	1070.9	1074.0	1074.0	1083.2	1070.9
45°	876.5	882.6	879.5	879.5	873.4	873.4	876.5	870.3
47.5°	694.4	700.6	691.3	694.4	688.2	694.4	691.3	697.5
50°	527.7	533.9	530.8	533.9	533.9	527.7	537.0	524.6
52.5°	395.0	398.1	395.0	391.9	388.9	388.9	395.0	391.9
55°	280.8	277.8	277.8	277.8	280.8	280.8	277.8	274.7
57.5°	188.3	188.3	185.2	185.2	188.3	182.1	185.2	182.1
60°	120.4	120.4	120.4	120.4	117.3	120.4	120.4	120.4
62.5°	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
65°	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
67.5°	30.9	33.9	33.9	33.9	30.9	30.9	30.9	30.9
70°	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
72.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
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)