

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: P252616

Luminaire Tested: **LD6B50D010TE EU6B30509030 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252616
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B50D010TE EU6B30509030 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4550.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

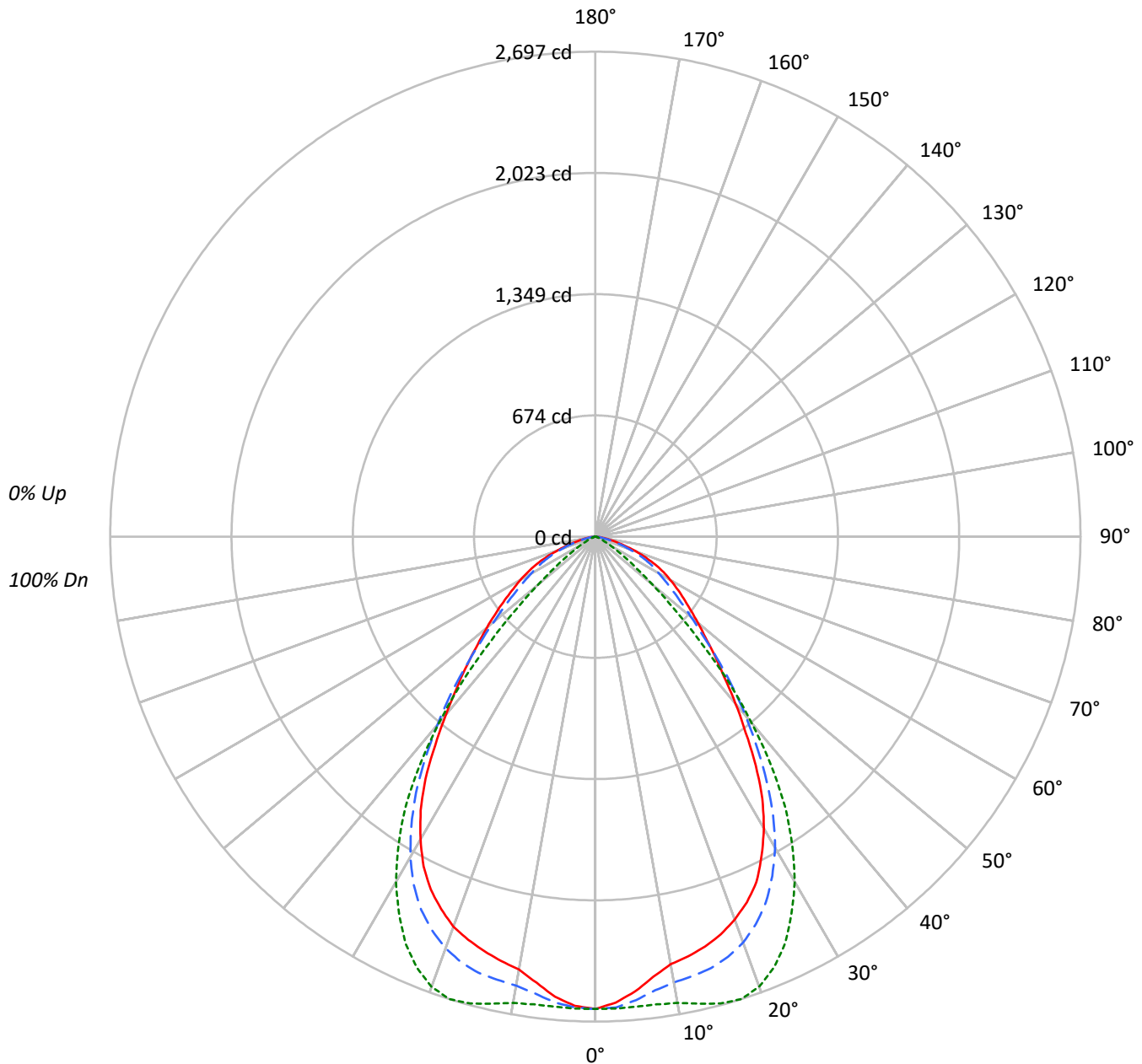
Input Watts (W): 58.77
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	171381	171381	171381
5°	166272	171839	168256
10°	159947	174429	161954
15°	159379	181533	161223
20°	157288	184914	160246
25°	152594	179704	155869
30°	141160	167014	146418
35°	123839	146816	131094
40°	103195	115093	109923
45°	86857	75933	92744
50°	75209	41614	79837
55°	68053	22112	69782
60°	62605	11495	62605
65°	56732	6098	55327
70°	45761	3472	42289
75°	31383	2294	29089
80°	20551	1127	18259
85°	13624	2246	11378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.0	5.4
10°-20°	708.3	15.6
20°-30°	1046.5	23.0
30°-40°	1057.1	23.2
40°-50°	728.6	16.0
50°-60°	418.5	9.2
60°-70°	243.6	5.4
70°-80°	88.9	2.0
80°-90°	13.6	0.3
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°	1999.8	44.0
0°-40°	3056.9	67.2
0°-60°	4204.0	92.4
0°-90°	4550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4550.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2627	2627	2627	2627	2627	
5°	2539	2588	2624	2600	2569	238
15°	2360	2484	2688	2512	2387	665
25°	2120	2244	2496	2290	2165	966
35°	1555	1661	1843	1737	1646	965
45°	941	954	823	1014	1005	732
55°	598	525	194	547	614	539
65°	368	310	40	307	358	360
75°	124	100	9	97	115	140
85°	18	9	3	12	15	23
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°	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9
2.5°	2593.5	2596.6	2599.6	2596.6	2599.6	2611.8	2602.6	2608.7	2608.7	2611.8	2620.9
5°	2538.9	2538.9	2544.9	2541.9	2551.0	2563.2	2554.1	2563.2	2566.2	2572.3	2587.5
7.5°	2469.0	2469.0	2472.1	2472.1	2484.2	2496.4	2490.3	2502.4	2514.6	2526.7	2544.9
10°	2414.4	2420.4	2420.4	2423.5	2435.6	2450.8	2447.8	2462.9	2475.1	2493.3	2517.6
12.5°	2390.1	2393.1	2393.1	2399.2	2411.3	2426.5	2423.5	2438.7	2456.9	2478.1	2502.4
15°	2359.7	2365.8	2362.7	2368.8	2381.0	2396.1	2393.1	2408.3	2429.5	2450.8	2484.2
17.5°	2320.2	2323.2	2326.3	2326.3	2338.4	2350.6	2350.6	2365.8	2390.1	2414.4	2450.8
20°	2265.5	2271.6	2271.6	2274.7	2283.8	2302.0	2299.0	2314.1	2338.4	2362.7	2402.2
22.5°	2201.8	2204.8	2204.8	2207.8	2223.0	2232.1	2235.2	2247.3	2268.6	2295.9	2332.4
25°	2119.8	2122.8	2119.8	2128.9	2135.0	2153.2	2147.1	2162.3	2186.6	2207.8	2244.3
27.5°	2001.3	2007.4	2007.4	2010.4	2025.6	2040.8	2040.8	2056.0	2077.3	2092.4	2128.9
30°	1873.8	1882.9	1873.8	1889.0	1895.0	1907.2	1916.3	1925.4	1943.6	1964.9	1998.3
32.5°	1728.0	1725.0	1728.0	1734.1	1752.3	1761.4	1767.5	1776.6	1794.8	1813.0	1840.4
35°	1554.9	1561.0	1564.0	1576.2	1576.2	1591.3	1594.4	1600.5	1627.8	1639.9	1661.2
37.5°	1372.7	1378.8	1381.8	1387.9	1400.0	1406.1	1415.2	1424.3	1442.5	1463.8	1475.9
40°	1211.7	1211.7	1214.8	1220.8	1230.0	1233.0	1242.1	1254.3	1266.4	1284.6	1296.8
42.5°	1059.9	1062.9	1059.9	1066.0	1075.1	1087.2	1084.2	1099.4	1102.4	1114.6	1123.7
45°	941.4	941.4	935.4	941.4	941.4	953.6	950.6	956.6	953.6	959.7	953.6
47.5°	829.1	832.1	829.1	832.1	832.1	832.1	835.2	829.1	832.1	823.0	804.8
50°	741.0	744.0	738.0	741.0	738.0	734.9	738.0	728.9	725.8	713.7	695.5
52.5°	665.1	662.1	659.0	659.0	659.0	656.0	652.9	643.8	634.7	622.6	601.3
55°	598.3	595.2	592.2	592.2	586.1	583.1	583.1	574.0	564.9	549.7	525.4
57.5°	537.5	534.5	531.5	531.5	528.4	522.4	522.4	513.2	501.1	482.9	461.6
60°	479.8	479.8	479.8	476.8	476.8	470.7	470.7	461.6	449.5	431.2	406.9
62.5°	428.2	425.2	425.2	425.2	425.2	422.1	419.1	413.0	400.9	382.7	361.4
65°	367.5	367.5	367.5	367.5	364.4	364.4	364.4	355.3	349.2	331.0	309.8
67.5°	300.7	300.7	300.7	300.7	297.6	300.7	300.7	294.6	288.5	270.3	252.1
70°	239.9	236.9	233.8	236.9	233.8	233.8	236.9	230.8	227.8	212.6	194.4
72.5°	176.1	179.2	176.1	176.1	176.1	173.1	176.1	173.1	167.0	154.9	142.7
75°	124.5	127.6	127.6	124.5	124.5	124.5	121.5	121.5	115.4	106.3	100.2
77.5°	85.0	85.0	85.0	85.0	82.0	82.0	82.0	79.0	75.9	69.8	63.8
80°	54.7	54.7	54.7	54.7	51.6	51.6	51.6	48.6	48.6	42.5	36.4
82.5°	33.4	33.4	33.4	33.4	33.4	33.4	30.4	30.4	27.3	24.3	21.3
85°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	15.2	15.2	12.1	9.1
87.5°	6.1	6.1	9.1	9.1	9.1	9.1	9.1	9.1	6.1	6.1	6.1
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9
2.5°	2614.8	2617.8	2617.8	2617.8	2626.9	2630.0	2620.9	2611.8	2630.0	2626.9	2633.0
5°	2584.4	2593.5	2599.6	2602.6	2611.8	2617.8	2608.7	2605.7	2620.9	2623.9	2626.9
7.5°	2548.0	2563.2	2578.4	2584.4	2596.6	2602.6	2599.6	2599.6	2617.8	2623.9	2623.9
10°	2523.7	2544.9	2563.2	2578.4	2593.5	2602.6	2602.6	2605.7	2626.9	2633.0	2639.1
12.5°	2517.6	2544.9	2569.2	2590.5	2602.6	2617.8	2620.9	2630.0	2651.2	2660.3	2660.3
15°	2502.4	2538.9	2569.2	2596.6	2614.8	2633.0	2639.1	2657.3	2681.6	2687.7	2693.8
17.5°	2475.1	2511.5	2548.0	2581.4	2605.7	2620.9	2639.1	2657.3	2687.7	2696.8	2699.8
20°	2426.5	2469.0	2505.5	2538.9	2563.2	2584.4	2602.6	2623.9	2651.2	2663.4	2666.4
22.5°	2353.6	2396.1	2432.6	2469.0	2493.3	2511.5	2529.8	2554.1	2581.4	2593.5	2593.5
25°	2265.5	2305.0	2344.5	2371.8	2396.1	2417.4	2426.5	2453.8	2481.2	2496.4	2496.4
27.5°	2153.2	2189.6	2226.1	2256.4	2271.6	2289.8	2305.0	2329.3	2350.6	2362.7	2374.9
30°	2010.4	2046.9	2080.3	2110.7	2128.9	2147.1	2162.3	2180.5	2201.8	2217.0	2220.0
32.5°	1855.6	1885.9	1919.3	1949.7	1967.9	1974.0	1989.2	2007.4	2025.6	2037.8	2040.8
35°	1685.5	1706.8	1728.0	1755.3	1773.6	1773.6	1788.7	1800.9	1816.1	1843.4	1837.3
37.5°	1485.1	1515.4	1530.6	1539.7	1551.9	1564.0	1567.1	1582.2	1600.5	1606.5	1615.6
40°	1296.8	1305.9	1315.0	1315.0	1327.1	1327.1	1327.1	1330.2	1348.4	1351.4	1363.6
42.5°	1108.5	1108.5	1099.4	1090.3	1093.3	1090.3	1075.1	1075.1	1084.2	1096.3	1096.3
45°	932.3	911.1	883.7	862.5	847.3	841.2	823.0	823.0	820.0	823.0	835.2
47.5°	783.5	747.1	701.5	659.0	643.8	631.7	604.3	592.2	586.1	589.2	595.2
50°	659.0	619.5	567.9	516.3	488.9	473.8	440.4	419.1	416.1	410.0	422.1
52.5°	567.9	519.3	464.6	403.9	376.6	352.3	315.8	297.6	285.5	285.5	288.5
55°	488.9	437.3	376.6	315.8	288.5	270.3	233.8	209.5	197.4	194.4	203.5
57.5°	422.1	373.5	312.8	252.1	224.7	203.5	167.0	145.8	136.7	130.6	133.6
60°	370.5	321.9	261.2	203.5	179.2	154.9	124.5	100.2	88.1	88.1	91.1
62.5°	321.9	276.4	221.7	167.0	145.8	124.5	91.1	69.8	60.7	57.7	60.7
65°	273.3	230.8	185.3	139.7	118.4	100.2	72.9	54.7	42.5	39.5	42.5
67.5°	221.7	188.3	148.8	112.4	94.1	79.0	54.7	39.5	30.4	27.3	30.4
70°	173.1	142.7	112.4	82.0	69.8	57.7	39.5	30.4	21.3	18.2	21.3
72.5°	124.5	103.3	79.0	57.7	48.6	39.5	27.3	21.3	15.2	12.1	15.2
75°	85.0	69.8	51.6	36.4	30.4	27.3	18.2	12.1	9.1	9.1	9.1
77.5°	54.7	42.5	33.4	24.3	18.2	15.2	9.1	6.1	6.1	6.1	6.1
80°	30.4	24.3	18.2	12.1	9.1	9.1	6.1	6.1	3.0	3.0	3.0
82.5°	18.2	12.1	9.1	6.1	6.1	3.0	3.0	3.0	3.0	3.0	3.0
85°	9.1	6.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
87.5°	3.0	3.0	3.0	3.0	0.0	0.0	0.0	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°	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9
2.5°	2620.9	2623.9	2614.8	2626.9	2617.8	2630.0	2630.0	2617.8	2620.9	2614.8	2626.9
5°	2614.8	2614.8	2608.7	2617.8	2605.7	2617.8	2614.8	2593.5	2599.6	2587.5	2599.6
7.5°	2614.8	2608.7	2599.6	2608.7	2593.5	2602.6	2590.5	2569.2	2563.2	2548.0	2548.0
10°	2623.9	2614.8	2602.6	2605.7	2590.5	2593.5	2575.3	2544.9	2535.8	2517.6	2511.5
12.5°	2645.2	2636.1	2617.8	2623.9	2602.6	2602.6	2578.4	2541.9	2523.7	2499.4	2493.3
15°	2675.5	2660.3	2639.1	2642.1	2620.9	2608.7	2578.4	2535.8	2511.5	2478.1	2469.0
17.5°	2681.6	2666.4	2639.1	2639.1	2611.8	2596.6	2560.1	2511.5	2481.2	2447.8	2429.5
20°	2648.2	2633.0	2602.6	2599.6	2575.3	2554.1	2514.6	2466.0	2435.6	2399.2	2384.0
22.5°	2578.4	2560.1	2532.8	2529.8	2505.5	2493.3	2450.8	2402.2	2371.8	2335.4	2323.2
25°	2475.1	2466.0	2438.7	2435.6	2414.4	2399.2	2362.7	2317.2	2289.8	2253.4	2241.3
27.5°	2353.6	2344.5	2317.2	2317.2	2292.9	2283.8	2250.4	2207.8	2186.6	2153.2	2138.0
30°	2207.8	2195.7	2180.5	2177.5	2156.2	2147.1	2116.7	2077.3	2056.0	2028.7	2022.6
32.5°	2034.7	2025.6	2016.5	2013.5	1992.2	1983.1	1961.9	1922.4	1904.2	1879.9	1870.7
35°	1834.3	1828.2	1819.1	1816.1	1807.0	1797.9	1776.6	1746.2	1737.1	1718.9	1709.8
37.5°	1603.5	1609.6	1603.5	1603.5	1594.4	1597.4	1579.2	1561.0	1551.9	1539.7	1533.6
40°	1354.5	1366.6	1375.7	1375.7	1372.7	1384.8	1381.8	1366.6	1363.6	1357.5	1354.5
42.5°	1102.4	1108.5	1126.7	1138.8	1135.8	1166.2	1169.2	1181.4	1190.5	1184.4	1187.4
45°	838.2	856.4	880.7	892.9	908.0	947.5	968.8	993.1	1014.3	1026.5	1023.4
47.5°	604.3	625.6	652.9	671.2	698.5	747.1	801.7	832.1	862.5	877.7	892.9
50°	437.3	458.6	492.0	519.3	537.5	604.3	662.1	701.5	734.9	756.2	771.4
52.5°	306.7	331.0	367.5	391.8	419.1	482.9	549.7	595.2	631.7	659.0	674.2
55°	212.6	239.9	273.3	297.6	328.0	394.8	458.6	507.2	546.6	570.9	589.2
57.5°	148.8	173.1	206.5	227.8	258.1	321.9	385.7	434.3	473.8	498.1	519.3
60°	100.2	124.5	157.9	179.2	203.5	267.2	325.0	376.6	413.0	437.3	458.6
62.5°	69.8	91.1	124.5	145.8	167.0	221.7	276.4	321.9	358.4	385.7	403.9
65°	54.7	72.9	100.2	118.4	139.7	185.3	230.8	270.3	306.7	334.1	346.2
67.5°	39.5	57.7	79.0	94.1	109.3	148.8	188.3	218.7	252.1	273.3	288.5
70°	27.3	39.5	57.7	69.8	82.0	112.4	142.7	170.1	194.4	209.5	221.7
72.5°	21.3	27.3	39.5	48.6	57.7	79.0	103.3	124.5	142.7	154.9	167.0
75°	12.1	18.2	27.3	33.4	39.5	54.7	69.8	85.0	97.2	106.3	112.4
77.5°	6.1	9.1	15.2	18.2	24.3	33.4	45.6	54.7	63.8	69.8	75.9
80°	6.1	6.1	9.1	9.1	12.1	18.2	24.3	30.4	36.4	42.5	45.6
82.5°	3.0	3.0	6.1	6.1	6.1	9.1	12.1	18.2	21.3	24.3	27.3
85°	3.0	3.0	3.0	3.0	3.0	6.1	6.1	9.1	12.1	15.2	15.2
87.5°	0.0	0.0	3.0	3.0	3.0	3.0	3.0	6.1	6.1	6.1	9.1
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: P252616

CATALOG NUMBER: LD6B50D010TE EU6B30509030 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9	2626.9
2.5°	2617.8	2623.9	2620.9	2626.9	2617.8	2614.8	2620.9	2611.8
5°	2584.4	2587.5	2584.4	2584.4	2578.4	2572.3	2578.4	2569.2
7.5°	2532.8	2532.8	2523.7	2523.7	2511.5	2505.5	2505.5	2502.4
10°	2490.3	2481.2	2472.1	2475.1	2456.9	2450.8	2447.8	2444.7
12.5°	2469.0	2462.9	2447.8	2447.8	2429.5	2423.5	2420.4	2417.4
15°	2444.7	2432.6	2420.4	2417.4	2402.2	2396.1	2393.1	2387.0
17.5°	2402.2	2393.1	2377.9	2377.9	2362.7	2359.7	2353.6	2350.6
20°	2356.7	2344.5	2332.4	2332.4	2314.1	2314.1	2305.0	2308.1
22.5°	2292.9	2283.8	2271.6	2271.6	2256.4	2253.4	2244.3	2241.3
25°	2217.0	2204.8	2195.7	2192.7	2180.5	2174.4	2171.4	2165.3
27.5°	2116.7	2107.6	2098.5	2092.4	2077.3	2074.2	2065.1	2068.1
30°	1992.2	1986.2	1983.1	1977.0	1958.8	1952.7	1952.7	1943.6
32.5°	1855.6	1846.5	1840.4	1831.3	1816.1	1813.0	1803.9	1807.0
35°	1688.5	1676.4	1667.3	1670.3	1652.1	1649.1	1643.0	1646.0
37.5°	1515.4	1503.3	1491.1	1488.1	1472.9	1472.9	1463.8	1463.8
40°	1336.2	1324.1	1318.0	1318.0	1299.8	1302.8	1293.7	1290.7
42.5°	1175.3	1163.1	1160.1	1157.1	1148.0	1144.9	1135.8	1138.8
45°	1023.4	1020.4	1020.4	1014.3	1005.2	1002.2	1005.2	1005.2
47.5°	889.8	892.9	889.8	889.8	883.7	889.8	883.7	886.8
50°	777.5	783.5	783.5	783.5	780.5	783.5	783.5	786.6
52.5°	683.3	692.4	689.4	692.4	689.4	695.5	692.4	695.5
55°	601.3	607.4	610.4	613.5	613.5	613.5	613.5	613.5
57.5°	525.4	534.5	537.5	540.6	540.6	546.6	540.6	540.6
60°	464.6	473.8	476.8	479.8	479.8	482.9	476.8	479.8
62.5°	410.0	419.1	419.1	422.1	422.1	422.1	416.1	419.1
65°	355.3	358.4	361.4	361.4	358.4	358.4	355.3	358.4
67.5°	294.6	297.6	294.6	294.6	291.5	291.5	285.5	288.5
70°	227.8	227.8	230.8	227.8	224.7	227.8	224.7	221.7
72.5°	170.1	170.1	170.1	167.0	167.0	164.0	167.0	167.0
75°	115.4	115.4	118.4	118.4	118.4	118.4	115.4	115.4
77.5°	75.9	75.9	75.9	75.9	79.0	75.9	75.9	75.9
80°	48.6	48.6	51.6	51.6	48.6	48.6	48.6	48.6
82.5°	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
85°	18.2	18.2	18.2	18.2	15.2	15.2	15.2	15.2
87.5°	9.1	9.1	9.1	9.1	9.1	9.1	6.1	6.1
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)