

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: P252288

Luminaire Tested: **LD6B40D010 EU6B30508050 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252288  
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: LD6B40D010 EU6B30508050 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3997.0 lumens  
Efficiency: N/A  
Efficacy: 92.9 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

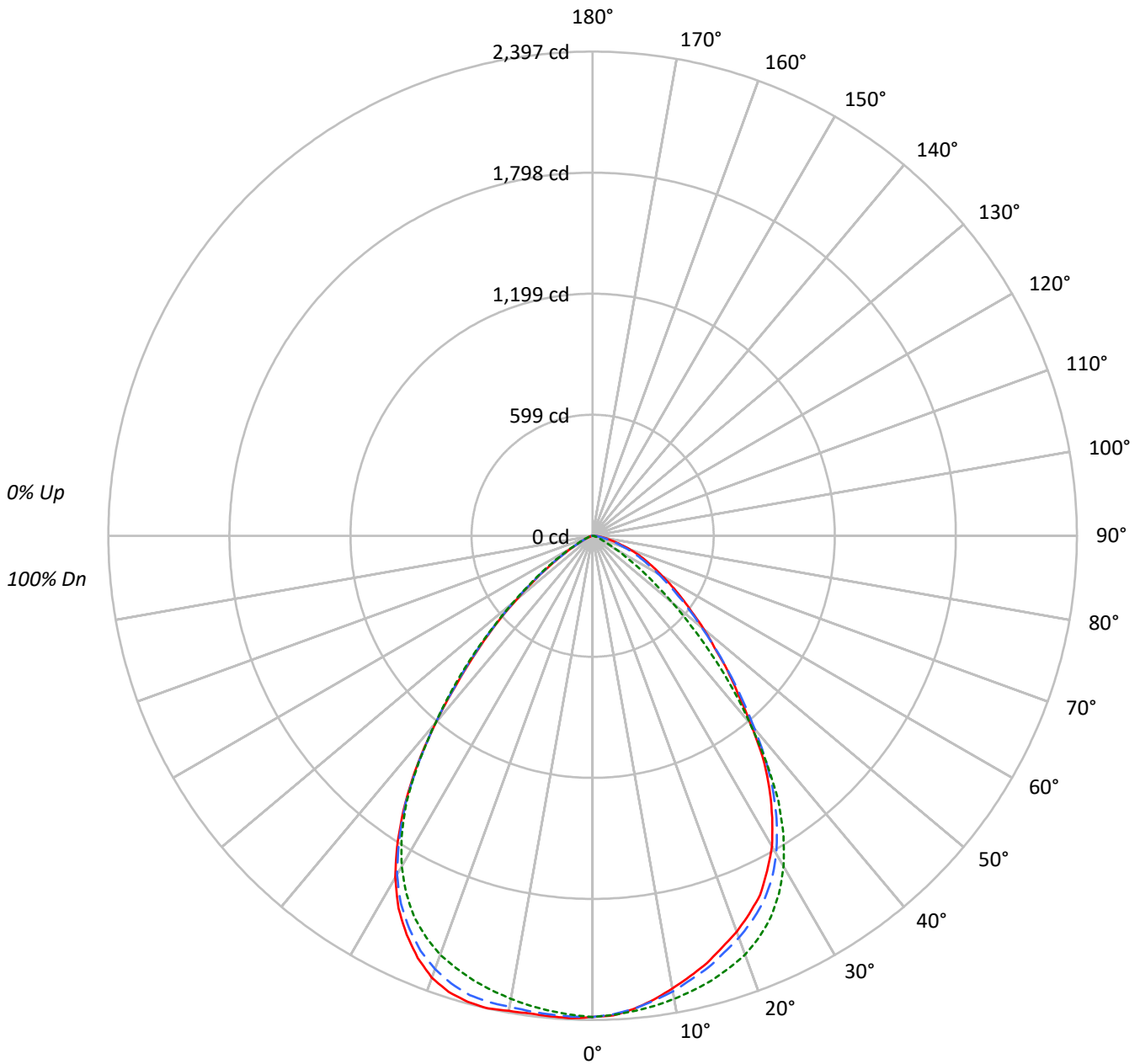
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	155436	155436	155436
5°	153954	154707	156403
10°	150778	154210	158211
15°	147897	153922	161304
20°	144833	153220	161614
25°	141263	150168	156798
30°	133739	142410	147179
35°	121457	127646	128792
40°	103655	103170	102676
45°	87079	77253	74863
50°	72722	52271	49652
55°	61205	32076	29130
60°	51814	16897	14640
65°	44861	8876	7101
70°	37330	5494	3834
75°	27551	3630	2168
80°	21603	2179	1090
85°	17217	2171	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.5	5.6
10°-20°	642.9	16.1
20°-30°	949.3	23.8
30°-40°	978.4	24.5
40°-50°	675.8	16.9
50°-60°	333.1	8.3
60°-70°	135.0	3.4
70°-80°	48.1	1.2
80°-90°	9.9	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°	1816.8	45.5
0°-40°	2795.2	69.9
0°-60°	3804.0	95.2
0°-90°	3997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3997.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2382	2382	2382	2382	2382	
5°	2351	2351	2362	2380	2388	222
15°	2190	2213	2279	2354	2388	616
25°	1962	2000	2086	2146	2178	897
35°	1525	1562	1603	1611	1617	945
45°	944	950	837	826	811	730
55°	538	518	282	265	256	486
65°	291	262	58	46	46	289
75°	109	92	14	9	9	123
85°	23	17	3	0	0	28
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°	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5
2.5°	2376.7	2368.1	2373.8	2362.3	2376.7	2362.3	2365.2	2368.1	2365.2	2368.1	2370.9
5°	2350.8	2342.2	2350.8	2336.4	2350.8	2342.2	2342.2	2345.1	2345.1	2347.9	2350.8
7.5°	2316.3	2307.6	2316.3	2301.9	2319.2	2310.5	2310.5	2316.3	2313.4	2316.3	2322.0
10°	2276.0	2264.5	2273.1	2264.5	2281.8	2270.2	2276.0	2276.0	2276.0	2284.6	2290.4
12.5°	2232.8	2221.3	2232.8	2218.4	2235.7	2227.1	2230.0	2238.6	2241.5	2247.2	2250.1
15°	2189.7	2175.3	2181.0	2172.4	2189.7	2181.0	2183.9	2195.4	2195.4	2204.1	2212.7
17.5°	2135.0	2123.5	2135.0	2123.5	2137.9	2132.1	2137.9	2146.5	2146.5	2155.1	2163.8
20°	2086.1	2074.6	2083.2	2074.6	2091.8	2083.2	2086.1	2097.6	2100.5	2109.1	2117.7
22.5°	2025.7	2017.0	2022.8	2014.2	2031.4	2025.7	2028.5	2040.1	2042.9	2048.7	2063.1
25°	1962.4	1945.1	1953.7	1948.0	1965.2	1956.6	1962.4	1973.9	1979.6	1988.3	1999.8
27.5°	1870.3	1861.7	1867.4	1867.4	1881.8	1873.2	1876.0	1887.6	1896.2	1904.8	1919.2
30°	1775.3	1760.9	1766.7	1769.6	1781.1	1775.3	1781.1	1792.6	1795.5	1807.0	1818.5
32.5°	1654.5	1648.7	1660.2	1654.5	1660.2	1660.2	1663.1	1671.7	1677.5	1683.3	1697.6
35°	1525.0	1513.5	1525.0	1519.2	1533.6	1525.0	1533.6	1542.3	1542.3	1553.8	1562.4
37.5°	1384.0	1369.6	1375.4	1375.4	1381.1	1378.3	1378.3	1392.6	1395.5	1404.2	1412.8
40°	1217.1	1211.4	1222.9	1220.0	1222.9	1222.9	1225.8	1234.4	1240.1	1243.0	1245.9
42.5°	1067.5	1070.4	1073.3	1073.3	1073.3	1073.3	1073.3	1084.8	1081.9	1090.5	1093.4
45°	943.8	932.3	938.0	935.1	943.8	935.1	943.8	952.4	946.7	955.3	949.5
47.5°	817.2	817.2	817.2	814.3	820.0	817.2	822.9	825.8	825.8	825.8	822.9
50°	716.5	707.8	710.7	710.7	713.6	710.7	716.5	719.3	719.3	713.6	702.1
52.5°	618.6	615.8	615.8	621.5	621.5	618.6	618.6	618.6	618.6	610.0	604.2
55°	538.1	532.3	535.2	535.2	535.2	535.2	538.1	535.2	535.2	526.6	517.9
57.5°	466.1	460.4	460.4	460.4	463.3	460.4	460.4	460.4	457.5	448.9	437.4
60°	397.1	394.2	397.1	397.1	400.0	397.1	397.1	397.1	391.3	382.7	371.2
62.5°	339.5	339.5	339.5	342.4	342.4	339.5	339.5	336.7	333.8	322.3	310.8
65°	290.6	287.7	290.6	290.6	293.5	293.5	290.6	287.7	284.9	273.3	261.8
67.5°	241.7	238.8	241.7	241.7	244.6	241.7	241.7	241.7	233.1	227.3	215.8
70°	195.7	192.8	192.8	192.8	195.7	189.9	192.8	192.8	187.0	178.4	166.9
72.5°	149.6	149.6	149.6	149.6	149.6	149.6	146.7	146.7	141.0	132.4	126.6
75°	109.3	109.3	112.2	112.2	109.3	109.3	109.3	106.5	103.6	97.8	92.1
77.5°	80.6	80.6	80.6	80.6	77.7	77.7	77.7	74.8	71.9	69.1	63.3
80°	57.5	57.5	57.5	54.7	57.5	54.7	54.7	54.7	48.9	46.0	43.2
82.5°	40.3	37.4	37.4	37.4	37.4	37.4	37.4	34.5	34.5	31.7	28.8
85°	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	20.1	17.3	17.3
87.5°	11.5	14.4	14.4	14.4	14.4	14.4	14.4	11.5	11.5	11.5	8.6
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°	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5
2.5°	2370.9	2370.9	2376.7	2368.1	2382.5	2373.8	2370.9	2385.3	2376.7	2373.8	2379.6
5°	2350.8	2353.7	2356.6	2350.8	2365.2	2356.6	2356.6	2370.9	2365.2	2362.3	2370.9
7.5°	2324.9	2327.8	2333.5	2330.7	2342.2	2336.4	2339.3	2353.7	2347.9	2347.9	2356.6
10°	2293.3	2299.0	2304.8	2304.8	2319.2	2313.4	2313.4	2330.7	2324.9	2327.8	2339.3
12.5°	2255.9	2264.5	2273.1	2276.0	2290.4	2281.8	2284.6	2304.8	2301.9	2304.8	2316.3
15°	2215.6	2227.1	2235.7	2235.7	2253.0	2244.3	2253.0	2273.1	2267.4	2278.9	2293.3
17.5°	2169.5	2181.0	2192.6	2195.4	2212.7	2206.9	2218.4	2238.6	2238.6	2244.3	2261.6
20°	2126.4	2140.8	2146.5	2155.1	2172.4	2169.5	2175.3	2198.3	2198.3	2206.9	2224.2
22.5°	2068.8	2083.2	2094.7	2103.4	2117.7	2117.7	2126.4	2146.5	2146.5	2152.3	2169.5
25°	2005.5	2022.8	2031.4	2040.1	2054.4	2051.6	2060.2	2077.5	2080.3	2086.1	2103.4
27.5°	1925.0	1939.3	1950.9	1956.6	1976.7	1965.2	1973.9	1994.0	1991.1	1996.9	2011.3
30°	1824.2	1838.6	1850.1	1850.1	1867.4	1867.4	1876.0	1884.7	1884.7	1890.4	1901.9
32.5°	1706.3	1723.5	1723.5	1732.2	1743.7	1732.2	1743.7	1755.2	1749.4	1758.1	1766.7
35°	1571.0	1579.7	1582.6	1582.6	1591.2	1588.3	1585.4	1594.1	1588.3	1602.7	1611.3
37.5°	1407.0	1418.5	1412.8	1418.5	1415.7	1407.0	1407.0	1421.4	1409.9	1412.8	1421.4
40°	1248.8	1248.8	1245.9	1231.5	1234.4	1225.8	1222.9	1225.8	1214.2	1211.4	1222.9
42.5°	1084.8	1081.9	1073.3	1053.1	1056.0	1041.6	1030.1	1030.1	1024.3	1021.5	1024.3
45°	938.0	929.4	915.0	892.0	886.2	874.7	851.7	845.9	837.3	837.3	840.2
47.5°	802.8	791.3	768.3	742.4	728.0	713.6	690.6	681.9	667.5	661.8	667.5
50°	690.6	670.4	641.7	604.2	589.9	572.6	549.6	535.2	520.8	515.0	512.2
52.5°	587.0	558.2	529.4	483.4	471.9	454.6	423.0	408.6	394.2	382.7	382.7
55°	497.8	471.9	431.6	388.4	371.2	353.9	322.3	302.1	287.7	282.0	276.2
57.5°	417.2	388.4	351.0	305.0	287.7	270.5	238.8	218.7	204.3	195.7	189.9
60°	351.0	319.4	282.0	241.7	221.6	204.3	172.6	152.5	138.1	129.5	123.7
62.5°	287.7	261.8	224.4	187.0	169.8	152.5	126.6	106.5	92.1	86.3	77.7
65°	241.7	215.8	181.3	149.6	135.2	118.0	95.0	77.7	66.2	57.5	51.8
67.5°	195.7	175.5	146.7	118.0	103.6	92.1	71.9	57.5	46.0	40.3	37.4
70°	155.4	135.2	112.2	89.2	80.6	69.1	54.7	40.3	34.5	28.8	25.9
72.5°	115.1	100.7	83.4	66.2	57.5	51.8	37.4	31.7	23.0	20.1	17.3
75°	83.4	71.9	60.4	46.0	40.3	37.4	28.8	20.1	17.3	14.4	11.5
77.5°	57.5	51.8	40.3	31.7	28.8	25.9	20.1	14.4	11.5	8.6	8.6
80°	37.4	31.7	25.9	20.1	20.1	17.3	11.5	8.6	8.6	5.8	5.8
82.5°	23.0	20.1	17.3	14.4	11.5	11.5	8.6	5.8	5.8	2.9	2.9
85°	14.4	11.5	8.6	8.6	5.8	5.8	5.8	2.9	2.9	2.9	2.9
87.5°	5.8	5.8	5.8	2.9	2.9	2.9	2.9	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°	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5
2.5°	2379.6	2379.6	2385.3	2376.7	2382.5	2382.5	2388.2	2376.7	2382.5	2385.3	2391.1
5°	2368.1	2370.9	2376.7	2373.8	2376.7	2376.7	2382.5	2368.1	2379.6	2379.6	2388.2
7.5°	2356.6	2356.6	2362.3	2359.4	2365.2	2368.1	2373.8	2362.3	2373.8	2373.8	2382.5
10°	2342.2	2342.2	2350.8	2347.9	2356.6	2359.4	2368.1	2356.6	2368.1	2370.9	2379.6
12.5°	2322.0	2324.9	2333.5	2333.5	2342.2	2347.9	2356.6	2350.8	2365.2	2368.1	2379.6
15°	2299.0	2304.8	2316.3	2313.4	2322.0	2330.7	2342.2	2333.5	2353.7	2359.4	2370.9
17.5°	2270.2	2276.0	2284.6	2284.6	2293.3	2299.0	2313.4	2307.6	2324.9	2327.8	2342.2
20°	2227.1	2235.7	2247.2	2244.3	2253.0	2258.7	2270.2	2264.5	2281.8	2287.5	2301.9
22.5°	2175.3	2181.0	2189.7	2189.7	2198.3	2204.1	2215.6	2206.9	2224.2	2227.1	2238.6
25°	2106.2	2112.0	2117.7	2120.6	2129.2	2132.1	2137.9	2132.1	2146.5	2149.4	2163.8
27.5°	2017.0	2019.9	2028.5	2028.5	2034.3	2037.2	2045.8	2034.3	2054.4	2054.4	2063.1
30°	1910.6	1907.7	1919.2	1913.4	1919.2	1919.2	1927.8	1922.1	1936.5	1930.7	1939.3
32.5°	1769.6	1775.3	1775.3	1769.6	1781.1	1778.2	1778.2	1772.5	1781.1	1784.0	1789.7
35°	1605.6	1614.2	1614.2	1617.1	1620.0	1611.3	1614.2	1596.9	1611.3	1614.2	1617.1
37.5°	1427.2	1418.5	1424.3	1415.7	1430.1	1412.8	1412.8	1401.3	1412.8	1412.8	1415.7
40°	1222.9	1220.0	1225.8	1220.0	1217.1	1214.2	1208.5	1199.9	1211.4	1205.6	1214.2
42.5°	1030.1	1027.2	1027.2	1021.5	1018.6	1018.6	1012.8	1007.1	1004.2	1004.2	1018.6
45°	831.6	837.3	831.6	828.7	834.4	828.7	831.6	820.0	825.8	820.0	825.8
47.5°	664.7	667.5	661.8	656.0	664.7	656.0	656.0	647.4	658.9	658.9	653.2
50°	515.0	512.2	506.4	512.2	509.3	509.3	509.3	500.7	506.4	497.8	503.5
52.5°	379.8	376.9	376.9	374.1	376.9	374.1	374.1	371.2	371.2	368.3	371.2
55°	276.2	273.3	267.6	267.6	267.6	270.5	267.6	264.7	264.7	261.8	264.7
57.5°	187.0	181.3	181.3	181.3	181.3	178.4	178.4	175.5	178.4	175.5	178.4
60°	120.8	120.8	115.1	115.1	115.1	115.1	115.1	112.2	115.1	115.1	115.1
62.5°	74.8	74.8	71.9	69.1	71.9	69.1	69.1	69.1	71.9	69.1	71.9
65°	48.9	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
67.5°	34.5	31.7	31.7	31.7	31.7	31.7	31.7	28.8	31.7	31.7	31.7
70°	23.0	23.0	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
72.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
75°	11.5	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
77.5°	8.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	5.8	5.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	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	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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: P252288

CATALOG NUMBER: LD6B40D010 EU6B30508050 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5	2382.5
2.5°	2382.5	2385.3	2379.6	2382.5	2376.7	2382.5	2385.3	2391.1
5°	2376.7	2379.6	2373.8	2379.6	2373.8	2379.6	2382.5	2388.2
7.5°	2370.9	2376.7	2370.9	2376.7	2370.9	2376.7	2379.6	2385.3
10°	2370.9	2379.6	2373.8	2382.5	2373.8	2379.6	2385.3	2388.2
12.5°	2370.9	2379.6	2376.7	2382.5	2379.6	2385.3	2391.1	2396.8
15°	2365.2	2373.8	2368.1	2376.7	2373.8	2376.7	2388.2	2388.2
17.5°	2333.5	2342.2	2342.2	2347.9	2347.9	2356.6	2362.3	2368.1
20°	2293.3	2301.9	2299.0	2307.6	2307.6	2316.3	2322.0	2327.8
22.5°	2232.8	2244.3	2241.5	2250.1	2247.2	2253.0	2264.5	2261.6
25°	2155.1	2169.5	2166.7	2172.4	2169.5	2169.5	2175.3	2178.2
27.5°	2060.2	2068.8	2065.9	2071.7	2065.9	2071.7	2077.5	2080.3
30°	1936.5	1942.2	1939.3	1942.2	1939.3	1945.1	1948.0	1953.7
32.5°	1786.8	1795.5	1786.8	1792.6	1789.7	1789.7	1801.2	1795.5
35°	1608.4	1611.3	1614.2	1614.2	1608.4	1611.3	1617.1	1617.1
37.5°	1409.9	1424.3	1407.0	1415.7	1412.8	1412.8	1412.8	1421.4
40°	1202.7	1205.6	1199.9	1199.9	1199.9	1197.0	1208.5	1205.6
42.5°	1007.1	1010.0	1007.1	998.4	1001.3	1001.3	1010.0	998.4
45°	817.2	822.9	820.0	820.0	814.3	814.3	817.2	811.4
47.5°	647.4	653.2	644.5	647.4	641.7	647.4	644.5	650.3
50°	492.0	497.8	494.9	497.8	497.8	492.0	500.7	489.2
52.5°	368.3	371.2	368.3	365.4	362.5	362.5	368.3	365.4
55°	261.8	259.0	259.0	259.0	261.8	261.8	259.0	256.1
57.5°	175.5	175.5	172.6	172.6	175.5	169.8	172.6	169.8
60°	112.2	112.2	112.2	112.2	109.3	112.2	112.2	112.2
62.5°	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
65°	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
67.5°	28.8	31.7	31.7	31.7	28.8	28.8	28.8	28.8
70°	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
72.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
75°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
77.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	2.9	2.9	2.9	2.9	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)