

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: PORTFOLIO

Report Number: P252621

Luminaire Tested: **LE\_6B50D010R EC6B30509730 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252621  
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: PORTFOLIO  
Catalog Number: LE\_6B50D010R EC6B30509730 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4971.3 lumens  
Efficiency: N/A  
Efficacy: 84.5 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

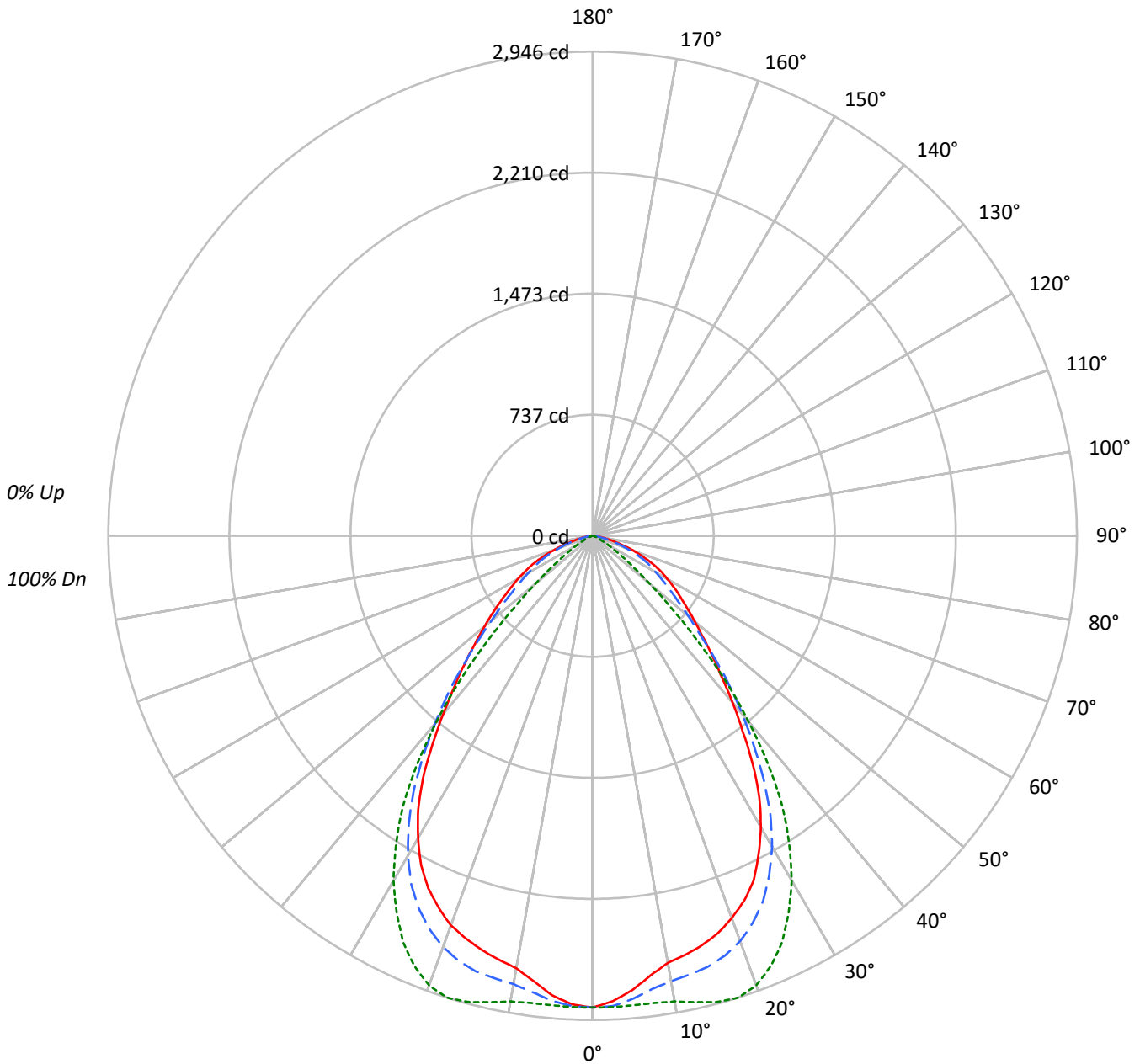
Input Watts (W): 58.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P252621

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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	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°	187247	187247	187247
5°	181662	187753	183837
10°	174753	190580	176953
15°	174130	198337	176150
20°	171847	202034	175083
25°	166717	196339	170302
30°	154223	182473	159978
35°	135307	160411	143232
40°	112751	125747	120101
45°	94903	82964	101325
50°	82171	45470	87226
55°	74343	24159	76231
60°	68398	12552	68398
65°	61981	6653	60437
70°	49996	3796	46200
75°	34282	2521	31786
80°	22467	1277	19950
85°	14896	2545	12426



TEST NUMBER: P252621

CATALOG NUMBER: LE\_6B50D010R EC6B30509730 6LBDW1LI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	267.6	5.4
10°-20°	773.9	15.6
20°-30°	1143.4	23.0
30°-40°	1155.0	23.2
40°-50°	796.1	16.0
50°-60°	457.2	9.2
60°-70°	266.1	5.4
70°-80°	97.1	2.0
80°-90°	14.9	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°	2185.0	44.0
0°-40°	3339.9	67.2
0°-60°	4593.2	92.4
0°-90°	4971.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4971.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2870	2870	2870	2870	2870	
5°	2774	2827	2867	2840	2807	260
15°	2578	2714	2936	2744	2608	726
25°	2316	2452	2728	2502	2366	1055
35°	1699	1815	2014	1898	1798	1054
45°	1029	1042	899	1108	1098	800
55°	654	574	212	597	670	588
65°	402	338	43	335	392	393
75°	136	110	10	106	126	153
85°	20	10	3	13	17	25
90°	0	0	0	0	0	



TEST NUMBER: P252621

CATALOG NUMBER: LE\_6B50D010R EC6B30509730 6LBDW1LI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1
2.5°	2833.6	2837.0	2840.2	2837.0	2840.2	2853.5	2843.6	2850.2	2850.2	2853.5	2863.5
5°	2773.9	2773.9	2780.5	2777.2	2787.2	2800.5	2790.5	2800.5	2803.8	2810.4	2827.0
7.5°	2697.6	2697.6	2700.9	2700.9	2714.2	2727.5	2720.9	2734.1	2747.4	2760.6	2780.5
10°	2637.9	2644.5	2644.5	2647.9	2661.1	2677.8	2674.4	2691.0	2704.2	2724.1	2750.8
12.5°	2611.4	2614.6	2614.6	2621.2	2634.6	2651.1	2647.9	2664.4	2684.4	2707.6	2734.1
15°	2578.1	2584.8	2581.5	2588.1	2601.4	2618.0	2614.6	2631.2	2654.5	2677.8	2714.2
17.5°	2535.0	2538.4	2541.6	2541.6	2554.9	2568.2	2568.2	2584.8	2611.4	2637.9	2677.8
20°	2475.2	2481.9	2481.9	2485.2	2495.2	2515.1	2511.8	2528.4	2554.9	2581.5	2624.6
22.5°	2405.6	2408.9	2408.9	2412.2	2428.9	2438.8	2442.1	2455.4	2478.6	2508.5	2548.2
25°	2316.0	2319.4	2316.0	2326.0	2332.6	2352.5	2345.9	2362.5	2389.0	2412.2	2452.1
27.5°	2186.6	2193.2	2193.2	2196.6	2213.1	2229.8	2229.8	2246.4	2269.6	2286.1	2326.0
30°	2047.2	2057.2	2047.2	2063.9	2070.5	2083.8	2093.8	2103.6	2123.6	2146.8	2183.2
32.5°	1888.0	1884.6	1888.0	1894.6	1914.5	1924.5	1931.1	1941.1	1961.0	1980.9	2010.8
35°	1698.9	1705.5	1708.9	1722.1	1722.1	1738.6	1742.0	1748.6	1778.5	1791.8	1815.0
37.5°	1499.8	1506.4	1509.8	1516.4	1529.6	1536.2	1546.2	1556.1	1576.1	1599.4	1612.6
40°	1323.9	1323.9	1327.2	1333.9	1343.9	1347.1	1357.1	1370.4	1383.6	1403.5	1416.9
42.5°	1158.0	1161.4	1158.0	1164.6	1174.6	1187.9	1184.5	1201.1	1204.5	1217.8	1227.8
45°	1028.6	1028.6	1022.0	1028.6	1028.6	1041.9	1038.6	1045.2	1041.9	1048.5	1041.9
47.5°	905.9	909.1	905.9	909.1	909.1	909.1	912.5	905.9	909.1	899.2	879.2
50°	809.6	812.9	806.2	809.6	806.2	803.0	806.2	796.4	793.0	779.8	759.9
52.5°	726.6	723.4	720.0	720.0	720.0	716.8	713.4	703.4	693.5	680.2	657.0
55°	653.6	650.4	647.0	647.0	640.4	637.1	637.1	627.1	617.1	600.6	574.0
57.5°	587.2	584.0	580.6	580.6	577.4	570.8	570.8	560.8	547.5	527.6	504.4
60°	524.2	524.2	524.2	521.0	521.0	514.2	514.2	504.4	491.1	471.1	444.6
62.5°	467.9	464.5	464.5	464.5	464.5	461.2	457.9	451.2	438.0	418.1	394.9
65°	401.5	401.5	401.5	401.5	398.1	398.1	398.1	388.2	381.6	361.6	338.5
67.5°	328.5	328.5	328.5	328.5	325.1	328.5	328.5	321.9	315.2	295.2	275.4
70°	262.1	258.8	255.5	258.8	255.5	255.5	258.8	252.1	248.9	232.2	212.4
72.5°	192.5	195.8	192.5	192.5	192.5	189.1	192.5	189.1	182.5	169.2	156.0
75°	136.0	139.4	139.4	136.0	136.0	136.0	132.8	132.8	126.1	116.1	109.5
77.5°	92.9	92.9	92.9	92.9	89.6	89.6	89.6	86.2	83.0	76.4	69.6
80°	59.8	59.8	59.8	59.8	56.4	56.4	56.4	53.1	53.1	46.5	39.9
82.5°	36.5	36.5	36.5	36.5	36.5	36.5	33.1	33.1	29.9	26.5	23.2
85°	19.9	19.9	19.9	19.9	19.9	19.9	19.9	16.6	16.6	13.2	10.0
87.5°	6.6	6.6	10.0	10.0	10.0	10.0	10.0	10.0	6.6	6.6	6.6
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: P252621

CATALOG NUMBER: LE\_6B50D010R EC6B30509730 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1
2.5°	2856.9	2860.2	2860.2	2860.2	2870.1	2873.5	2863.5	2853.5	2873.5	2870.1	2876.8
5°	2823.8	2833.6	2840.2	2843.6	2853.5	2860.2	2850.2	2846.9	2863.5	2866.9	2870.1
7.5°	2783.9	2800.5	2817.0	2823.8	2837.0	2843.6	2840.2	2840.2	2860.2	2866.9	2866.9
10°	2757.4	2780.5	2800.5	2817.0	2833.6	2843.6	2843.6	2846.9	2870.1	2876.8	2883.4
12.5°	2750.8	2780.5	2807.1	2830.4	2843.6	2860.2	2863.5	2873.5	2896.8	2906.6	2906.6
15°	2734.1	2773.9	2807.1	2837.0	2856.9	2876.8	2883.4	2903.4	2929.9	2936.5	2943.1
17.5°	2704.2	2744.1	2783.9	2820.4	2846.9	2863.5	2883.4	2903.4	2936.5	2946.5	2949.8
20°	2651.1	2697.6	2737.4	2773.9	2800.5	2823.8	2843.6	2866.9	2896.8	2910.0	2913.2
22.5°	2571.5	2618.0	2657.8	2697.6	2724.1	2744.1	2764.0	2790.5	2820.4	2833.6	2833.6
25°	2475.2	2518.4	2561.6	2591.4	2618.0	2641.2	2651.1	2681.0	2710.9	2727.5	2727.5
27.5°	2352.5	2392.4	2432.1	2465.4	2481.9	2501.9	2518.4	2545.0	2568.2	2581.5	2594.8
30°	2196.6	2236.4	2272.9	2306.1	2326.0	2345.9	2362.5	2382.4	2405.6	2422.2	2425.5
32.5°	2027.4	2060.5	2097.0	2130.2	2150.1	2156.8	2173.4	2193.2	2213.1	2226.5	2229.8
35°	1841.5	1864.8	1888.0	1917.9	1937.8	1937.8	1954.4	1967.6	1984.2	2014.1	2007.5
37.5°	1622.5	1655.8	1672.4	1682.2	1695.5	1708.9	1712.1	1728.8	1748.6	1755.2	1765.2
40°	1416.9	1426.8	1436.8	1436.8	1450.0	1450.0	1450.0	1453.4	1473.2	1476.5	1489.9
42.5°	1211.1	1211.1	1201.1	1191.2	1194.5	1191.2	1174.6	1174.6	1184.5	1197.9	1197.9
45°	1018.6	995.4	965.6	942.4	925.8	919.1	899.2	899.2	895.9	899.2	912.5
47.5°	856.1	816.2	766.5	720.0	703.4	690.1	660.2	647.0	640.4	643.8	650.4
50°	720.0	676.9	620.5	564.1	534.2	517.6	481.1	457.9	454.6	448.0	461.2
52.5°	620.5	567.4	507.6	441.2	411.5	384.9	345.1	325.1	311.9	311.9	315.2
55°	534.2	477.8	411.5	345.1	315.2	295.2	255.5	229.0	215.6	212.4	222.2
57.5°	461.2	408.1	341.8	275.4	245.5	222.2	182.5	159.2	149.4	142.6	146.0
60°	404.8	351.8	285.4	222.2	195.8	169.2	136.0	109.5	96.2	96.2	99.5
62.5°	351.8	302.0	242.2	182.5	159.2	136.0	99.5	76.4	66.4	63.0	66.4
65°	298.6	252.1	202.4	152.6	129.4	109.5	79.6	59.8	46.5	43.1	46.5
67.5°	242.2	205.8	162.6	122.8	102.9	86.2	59.8	43.1	33.1	29.9	33.1
70°	189.1	156.0	122.8	89.6	76.4	63.0	43.1	33.1	23.2	19.9	23.2
72.5°	136.0	112.9	86.2	63.0	53.1	43.1	29.9	23.2	16.6	13.2	16.6
75°	92.9	76.4	56.4	39.9	33.1	29.9	19.9	13.2	10.0	10.0	10.0
77.5°	59.8	46.5	36.5	26.5	19.9	16.6	10.0	6.6	6.6	6.6	6.6
80°	33.1	26.5	19.9	13.2	10.0	10.0	6.6	6.6	3.4	3.4	3.4
82.5°	19.9	13.2	10.0	6.6	6.6	3.4	3.4	3.4	3.4	3.4	3.4
85°	10.0	6.6	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
87.5°	3.4	3.4	3.4	3.4	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



TEST NUMBER: P252621

CATALOG NUMBER: LE\_6B50D010R EC6B30509730 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1
2.5°	2863.5	2866.9	2856.9	2870.1	2860.2	2873.5	2873.5	2860.2	2863.5	2856.9	2870.1
5°	2856.9	2856.9	2850.2	2860.2	2846.9	2860.2	2856.9	2833.6	2840.2	2827.0	2840.2
7.5°	2856.9	2850.2	2840.2	2850.2	2833.6	2843.6	2830.4	2807.1	2800.5	2783.9	2783.9
10°	2866.9	2856.9	2843.6	2846.9	2830.4	2833.6	2813.8	2780.5	2770.6	2750.8	2744.1
12.5°	2890.0	2880.1	2860.2	2866.9	2843.6	2843.6	2817.0	2777.2	2757.4	2730.8	2724.1
15°	2923.2	2906.6	2883.4	2886.8	2863.5	2850.2	2817.0	2770.6	2744.1	2707.6	2697.6
17.5°	2929.9	2913.2	2883.4	2883.4	2853.5	2837.0	2797.1	2744.1	2710.9	2674.4	2654.5
20°	2893.4	2876.8	2843.6	2840.2	2813.8	2790.5	2747.4	2694.2	2661.1	2621.2	2604.8
22.5°	2817.0	2797.1	2767.2	2764.0	2737.4	2724.1	2677.8	2624.6	2591.4	2551.6	2538.4
25°	2704.2	2694.2	2664.4	2661.1	2637.9	2621.2	2581.5	2531.8	2501.9	2462.0	2448.8
27.5°	2571.5	2561.6	2531.8	2531.8	2505.1	2495.2	2458.8	2412.2	2389.0	2352.5	2335.9
30°	2412.2	2399.0	2382.4	2379.1	2355.9	2345.9	2312.8	2269.6	2246.4	2216.5	2209.9
32.5°	2223.1	2213.1	2203.2	2199.9	2176.6	2166.8	2143.5	2100.4	2080.5	2053.9	2044.0
35°	2004.1	1997.5	1987.5	1984.2	1974.2	1964.2	1941.1	1907.9	1898.0	1878.0	1868.1
37.5°	1752.0	1758.6	1752.0	1752.0	1742.0	1745.4	1725.4	1705.5	1695.5	1682.2	1675.6
40°	1479.9	1493.1	1503.1	1503.1	1499.8	1513.0	1509.8	1493.1	1489.9	1483.2	1479.9
42.5°	1204.5	1211.1	1231.0	1244.2	1241.0	1274.1	1277.5	1290.8	1300.8	1294.0	1297.4
45°	915.8	935.8	962.2	975.5	992.1	1035.2	1058.5	1085.0	1108.2	1121.5	1118.2
47.5°	660.2	683.5	713.4	733.2	763.1	816.2	876.0	909.1	942.4	958.9	975.5
50°	477.8	501.0	537.5	567.4	587.2	660.2	723.4	766.5	803.0	826.2	842.8
52.5°	335.1	361.6	401.5	428.0	457.9	527.6	600.6	650.4	690.1	720.0	736.6
55°	232.2	262.1	298.6	325.1	358.4	431.4	501.0	554.1	597.2	623.8	643.8
57.5°	162.6	189.1	225.6	248.9	282.0	351.8	421.4	474.5	517.6	544.1	567.4
60°	109.5	136.0	172.5	195.8	222.2	292.0	355.0	411.5	451.2	477.8	501.0
62.5°	76.4	99.5	136.0	159.2	182.5	242.2	302.0	351.8	391.5	421.4	441.2
65°	59.8	79.6	109.5	129.4	152.6	202.4	252.1	295.2	335.1	365.0	378.2
67.5°	43.1	63.0	86.2	102.9	119.5	162.6	205.8	238.9	275.4	298.6	315.2
70°	29.9	43.1	63.0	76.4	89.6	122.8	156.0	185.9	212.4	229.0	242.2
72.5°	23.2	29.9	43.1	53.1	63.0	86.2	112.9	136.0	156.0	169.2	182.5
75°	13.2	19.9	29.9	36.5	43.1	59.8	76.4	92.9	106.1	116.1	122.8
77.5°	6.6	10.0	16.6	19.9	26.5	36.5	49.8	59.8	69.6	76.4	83.0
80°	6.6	6.6	10.0	10.0	13.2	19.9	26.5	33.1	39.9	46.5	49.8
82.5°	3.4	3.4	6.6	6.6	6.6	10.0	13.2	19.9	23.2	26.5	29.9
85°	3.4	3.4	3.4	3.4	3.4	6.6	6.6	10.0	13.2	16.6	16.6
87.5°	0.0	0.0	3.4	3.4	3.4	3.4	3.4	6.6	6.6	6.6	10.0
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: P252621

CATALOG NUMBER: LE\_6B50D010R EC6B30509730 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1	2870.1
2.5°	2860.2	2866.9	2863.5	2870.1	2860.2	2856.9	2863.5	2853.5
5°	2823.8	2827.0	2823.8	2823.8	2817.0	2810.4	2817.0	2807.1
7.5°	2767.2	2767.2	2757.4	2757.4	2744.1	2737.4	2737.4	2734.1
10°	2720.9	2710.9	2700.9	2704.2	2684.4	2677.8	2674.4	2671.1
12.5°	2697.6	2691.0	2674.4	2674.4	2654.5	2647.9	2644.5	2641.2
15°	2671.1	2657.8	2644.5	2641.2	2624.6	2618.0	2614.6	2608.0
17.5°	2624.6	2614.6	2598.1	2598.1	2581.5	2578.1	2571.5	2568.2
20°	2574.9	2561.6	2548.2	2548.2	2528.4	2528.4	2518.4	2521.8
22.5°	2505.1	2495.2	2481.9	2481.9	2465.4	2462.0	2452.1	2448.8
25°	2422.2	2408.9	2399.0	2395.6	2382.4	2375.8	2372.4	2365.8
27.5°	2312.8	2302.8	2292.8	2286.1	2269.6	2266.2	2256.2	2259.6
30°	2176.6	2170.0	2166.8	2160.1	2140.1	2133.5	2133.5	2123.6
32.5°	2027.4	2017.4	2010.8	2000.8	1984.2	1980.9	1971.0	1974.2
35°	1844.9	1831.6	1821.6	1825.0	1805.0	1801.8	1795.1	1798.4
37.5°	1655.8	1642.5	1629.1	1625.9	1609.2	1609.2	1599.4	1599.4
40°	1460.0	1446.8	1440.0	1440.0	1420.1	1423.5	1413.5	1410.2
42.5°	1284.1	1270.9	1267.5	1264.2	1254.2	1250.9	1241.0	1244.2
45°	1118.2	1114.9	1114.9	1108.2	1098.2	1095.0	1098.2	1098.2
47.5°	972.2	975.5	972.2	972.2	965.6	972.2	965.6	968.9
50°	849.4	856.1	856.1	856.1	852.8	856.1	856.1	859.4
52.5°	746.6	756.5	753.2	756.5	753.2	759.9	756.5	759.9
55°	657.0	663.6	666.9	670.2	670.2	670.2	670.2	670.2
57.5°	574.0	584.0	587.2	590.6	590.6	597.2	590.6	590.6
60°	507.6	517.6	521.0	524.2	524.2	527.6	521.0	524.2
62.5°	448.0	457.9	457.9	461.2	461.2	461.2	454.6	457.9
65°	388.2	391.5	394.9	394.9	391.5	391.5	388.2	391.5
67.5°	321.9	325.1	321.9	321.9	318.5	318.5	311.9	315.2
70°	248.9	248.9	252.1	248.9	245.5	248.9	245.5	242.2
72.5°	185.9	185.9	185.9	182.5	182.5	179.1	182.5	182.5
75°	126.1	126.1	129.4	129.4	129.4	129.4	126.1	126.1
77.5°	83.0	83.0	83.0	83.0	86.2	83.0	83.0	83.0
80°	53.1	53.1	56.4	56.4	53.1	53.1	53.1	53.1
82.5°	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
85°	19.9	19.9	19.9	19.9	16.6	16.6	16.6	16.6
87.5°	10.0	10.0	10.0	10.0	10.0	10.0	6.6	6.6
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)