

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: P252617

Luminaire Tested: **LE_6B50D010R EC6B30509035 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252617
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 EC6B30509035 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5768.8 lumens
Efficiency: N/A
Efficacy: 98.1 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

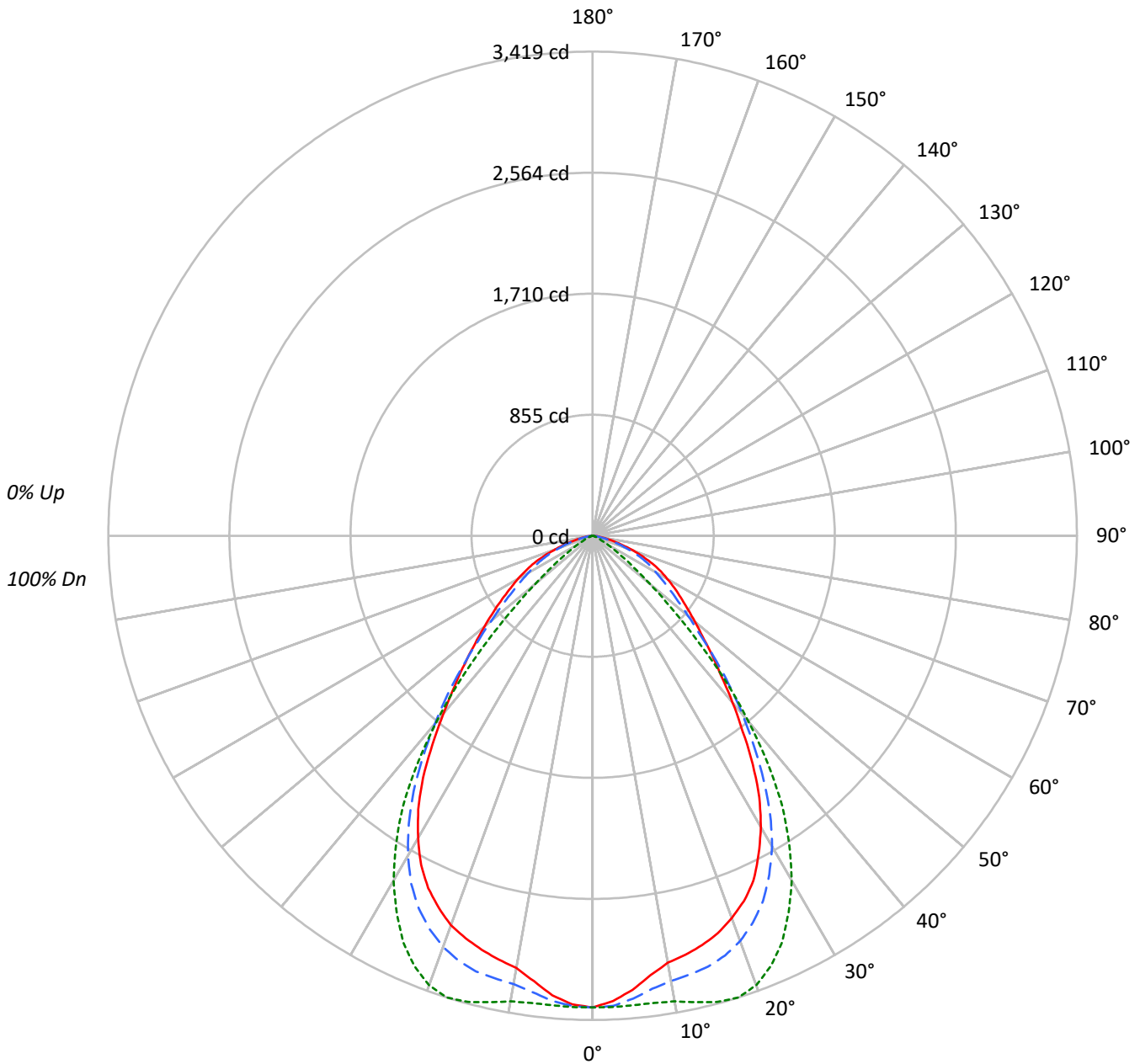
Input Watts (W): 58.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252617

CATALOG NUMBER: LE_6B50D010R EC6B30509035 6LBDW1LI

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°	217290	217290	217290
5°	210805	217872	213327
10°	202782	221146	205339
15°	202072	230156	204409
20°	199424	234443	203159
25°	193467	227833	197628
30°	178977	211747	185637
35°	157010	186136	166209
40°	130831	145923	139365
45°	110127	96278	117591
50°	95356	52758	101212
55°	86274	28026	88470
60°	79385	14562	79385
65°	71922	7719	70147
70°	58007	4406	53620
75°	39802	2899	36903
80°	25999	1465	23143
85°	17292	2919	14372



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.6	5.4
10°-20°	898.1	15.6
20°-30°	1326.9	23.0
30°-40°	1340.2	23.2
40°-50°	923.8	16.0
50°-60°	530.6	9.2
60°-70°	308.8	5.4
70°-80°	112.7	2.0
80°-90°	17.2	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°	2535.5	44.0
0°-40°	3875.7	67.2
0°-60°	5330.1	92.4
0°-90°	5768.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5768.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3331	3331	3331	3331	3331	
5°	3219	3280	3327	3296	3257	302
15°	2992	3150	3408	3184	3026	843
25°	2688	2846	3165	2903	2745	1225
35°	1971	2106	2337	2202	2087	1224
45°	1194	1209	1044	1286	1274	928
55°	758	666	246	693	778	683
65°	466	393	50	389	454	456
75°	158	127	12	123	146	178
85°	23	12	4	15	19	29
90°	0	0	0	0	0	



TEST NUMBER: P252617

CATALOG NUMBER: LE_6B50D010R EC6B30509035 6LBDW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6
2.5°	3288.2	3292.1	3295.9	3292.1	3295.9	3311.4	3299.8	3307.5	3307.5	3311.4	3322.9
5°	3218.9	3218.9	3226.6	3222.8	3234.4	3249.8	3238.1	3249.8	3253.6	3261.2	3280.5
7.5°	3130.4	3130.4	3134.2	3134.2	3149.6	3165.0	3157.4	3172.8	3188.1	3203.5	3226.6
10°	3061.0	3068.8	3068.8	3072.6	3088.0	3107.2	3103.4	3122.6	3138.1	3161.1	3192.0
12.5°	3030.2	3034.1	3034.1	3041.8	3057.2	3076.5	3072.6	3091.9	3115.0	3141.9	3172.8
15°	2991.8	2999.5	2995.6	3003.2	3018.8	3038.0	3034.1	3053.4	3080.2	3107.2	3149.6
17.5°	2941.8	2945.5	2949.4	2949.4	2964.8	2980.2	2980.2	2999.5	3030.2	3061.0	3107.2
20°	2872.4	2880.1	2880.1	2884.0	2895.5	2918.6	2914.8	2934.0	2964.8	2995.6	3045.6
22.5°	2791.5	2795.4	2795.4	2799.2	2818.5	2830.0	2833.9	2849.2	2876.2	2910.9	2957.1
25°	2687.6	2691.4	2687.6	2699.1	2706.9	2729.9	2722.2	2741.5	2772.2	2799.2	2845.5
27.5°	2537.4	2545.1	2545.1	2549.0	2568.2	2587.5	2587.5	2606.8	2633.6	2652.9	2699.1
30°	2375.8	2387.2	2375.8	2395.0	2402.6	2418.0	2429.6	2441.1	2464.2	2491.2	2533.5
32.5°	2190.9	2187.0	2190.9	2198.6	2221.6	2233.2	2240.9	2252.5	2275.6	2298.6	2333.4
35°	1971.4	1979.1	1983.0	1998.4	1998.4	2017.6	2021.5	2029.1	2063.8	2079.2	2106.1
37.5°	1740.4	1748.1	1751.9	1759.6	1775.0	1782.8	1794.2	1805.9	1828.9	1855.9	1871.2
40°	1536.2	1536.2	1540.1	1547.9	1559.4	1563.2	1574.8	1590.2	1605.6	1628.8	1644.1
42.5°	1343.8	1347.6	1343.8	1351.5	1363.0	1378.5	1374.6	1393.9	1397.8	1413.1	1424.6
45°	1193.6	1193.6	1185.9	1193.6	1193.6	1209.0	1205.1	1212.9	1209.0	1216.8	1209.0
47.5°	1051.1	1055.0	1051.1	1055.0	1055.0	1055.0	1058.9	1051.1	1055.0	1043.5	1020.4
50°	939.5	943.4	935.6	939.5	935.6	931.8	935.6	924.1	920.2	904.9	881.8
52.5°	843.2	839.4	835.5	835.5	835.5	831.6	827.9	816.2	804.8	789.4	762.4
55°	758.5	754.6	750.9	750.9	743.1	739.2	739.2	727.8	716.1	696.9	666.1
57.5°	681.5	677.6	673.9	673.9	670.0	662.2	662.2	650.8	635.4	612.2	585.2
60°	608.4	608.4	608.4	604.5	604.5	596.8	596.8	585.2	569.9	546.8	516.0
62.5°	542.9	539.0	539.0	539.0	539.0	535.2	531.4	523.6	508.2	485.1	458.2
65°	465.9	465.9	465.9	465.9	462.0	462.0	462.0	450.5	442.8	419.8	392.8
67.5°	381.2	381.2	381.2	381.2	377.4	381.2	381.2	373.5	365.8	342.6	319.6
70°	304.1	300.4	296.5	300.4	296.5	296.5	300.4	292.6	288.8	269.5	246.4
72.5°	223.4	227.1	223.4	223.4	223.4	219.5	223.4	219.5	211.8	196.4	181.0
75°	157.9	161.8	161.8	157.9	157.9	157.9	154.0	154.0	146.4	134.8	127.1
77.5°	107.8	107.8	107.8	107.8	104.0	104.0	104.0	100.1	96.2	88.5	80.9
80°	69.2	69.2	69.2	69.2	65.5	65.5	65.5	61.6	61.6	53.9	46.2
82.5°	42.4	42.4	42.4	42.4	42.4	42.4	38.5	38.5	34.6	30.8	27.0
85°	23.1	23.1	23.1	23.1	23.1	23.1	23.1	19.2	19.2	15.4	11.5
87.5°	7.8	7.8	11.5	11.5	11.5	11.5	11.5	11.5	7.8	7.8	7.8
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: P252617

CATALOG NUMBER: LE_6B50D010R EC6B30509035 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6
2.5°	3315.1	3319.0	3319.0	3319.0	3330.6	3334.4	3322.9	3311.4	3334.4	3330.6	3338.2
5°	3276.6	3288.2	3295.9	3299.8	3311.4	3319.0	3307.5	3303.6	3322.9	3326.8	3330.6
7.5°	3230.5	3249.8	3269.0	3276.6	3292.1	3299.8	3295.9	3295.9	3319.0	3326.8	3326.8
10°	3199.6	3226.6	3249.8	3269.0	3288.2	3299.8	3299.8	3303.6	3330.6	3338.2	3346.0
12.5°	3192.0	3226.6	3257.4	3284.4	3299.8	3319.0	3322.9	3334.4	3361.4	3373.0	3373.0
15°	3172.8	3218.9	3257.4	3292.1	3315.1	3338.2	3346.0	3369.1	3399.9	3407.6	3415.2
17.5°	3138.1	3184.2	3230.5	3272.9	3303.6	3322.9	3346.0	3369.1	3407.6	3419.1	3423.0
20°	3076.5	3130.4	3176.6	3218.9	3249.8	3276.6	3299.8	3326.8	3361.4	3376.8	3380.6
22.5°	2984.0	3038.0	3084.1	3130.4	3161.1	3184.2	3207.4	3238.1	3272.9	3288.2	3288.2
25°	2872.4	2922.5	2972.5	3007.1	3038.0	3064.9	3076.5	3111.1	3145.8	3165.0	3165.0
27.5°	2729.9	2776.1	2822.4	2860.9	2880.1	2903.2	2922.5	2953.2	2980.2	2995.6	3011.0
30°	2549.0	2595.1	2637.5	2676.0	2699.1	2722.2	2741.5	2764.6	2791.5	2810.8	2814.6
32.5°	2352.6	2391.1	2433.5	2472.0	2495.0	2502.8	2522.0	2545.1	2568.2	2583.6	2587.5
35°	2137.0	2163.9	2190.9	2225.5	2248.6	2248.6	2267.9	2283.2	2302.5	2337.1	2329.5
37.5°	1882.9	1921.4	1940.6	1952.1	1967.5	1983.0	1986.8	2006.0	2029.1	2036.9	2048.4
40°	1644.1	1655.6	1667.2	1667.2	1682.6	1682.6	1682.6	1686.5	1709.6	1713.4	1728.9
42.5°	1405.4	1405.4	1393.9	1382.2	1386.1	1382.2	1363.0	1363.0	1374.6	1390.0	1390.0
45°	1182.1	1155.1	1120.5	1093.5	1074.2	1066.5	1043.5	1043.5	1039.6	1043.5	1058.9
47.5°	993.4	947.2	889.5	835.5	816.2	800.9	766.2	750.9	743.1	747.0	754.6
50°	835.5	785.5	720.0	654.6	619.9	600.6	558.2	531.4	527.5	519.8	535.2
52.5°	720.0	658.4	589.1	512.1	477.5	446.6	400.5	377.4	361.9	361.9	365.8
55°	619.9	554.5	477.5	400.5	365.8	342.6	296.5	265.6	250.2	246.4	258.0
57.5°	535.2	473.6	396.6	319.6	284.9	258.0	211.8	184.9	173.2	165.6	169.4
60°	469.8	408.1	331.1	258.0	227.1	196.4	157.9	127.1	111.6	111.6	115.5
62.5°	408.1	350.4	281.1	211.8	184.9	157.9	115.5	88.5	77.0	73.1	77.0
65°	346.5	292.6	234.9	177.1	150.1	127.1	92.4	69.2	53.9	50.0	53.9
67.5°	281.1	238.8	188.6	142.5	119.4	100.1	69.2	50.0	38.5	34.6	38.5
70°	219.5	181.0	142.5	104.0	88.5	73.1	50.0	38.5	27.0	23.1	27.0
72.5°	157.9	130.9	100.1	73.1	61.6	50.0	34.6	27.0	19.2	15.4	19.2
75°	107.8	88.5	65.5	46.2	38.5	34.6	23.1	15.4	11.5	11.5	11.5
77.5°	69.2	53.9	42.4	30.8	23.1	19.2	11.5	7.8	7.8	7.8	7.8
80°	38.5	30.8	23.1	15.4	11.5	11.5	7.8	7.8	3.9	3.9	3.9
82.5°	23.1	15.4	11.5	7.8	7.8	3.9	3.9	3.9	3.9	3.9	3.9
85°	11.5	7.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
87.5°	3.9	3.9	3.9	3.9	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: P252617

CATALOG NUMBER: LE_6B50D010R EC6B30509035 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6
2.5°	3322.9	3326.8	3315.1	3330.6	3319.0	3334.4	3334.4	3319.0	3322.9	3315.1	3330.6
5°	3315.1	3315.1	3307.5	3319.0	3303.6	3319.0	3315.1	3288.2	3295.9	3280.5	3295.9
7.5°	3315.1	3307.5	3295.9	3307.5	3288.2	3299.8	3284.4	3257.4	3249.8	3230.5	3230.5
10°	3326.8	3315.1	3299.8	3303.6	3284.4	3288.2	3265.1	3226.6	3215.1	3192.0	3184.2
12.5°	3353.8	3342.1	3319.0	3326.8	3299.8	3299.8	3269.0	3222.8	3199.6	3168.9	3161.1
15°	3392.2	3373.0	3346.0	3349.9	3322.9	3307.5	3269.0	3215.1	3184.2	3141.9	3130.4
17.5°	3399.9	3380.6	3346.0	3346.0	3311.4	3292.1	3245.9	3184.2	3145.8	3103.4	3080.2
20°	3357.5	3338.2	3299.8	3295.9	3265.1	3238.1	3188.1	3126.5	3088.0	3041.8	3022.5
22.5°	3269.0	3245.9	3211.2	3207.4	3176.6	3161.1	3107.2	3045.6	3007.1	2961.0	2945.5
25°	3138.1	3126.5	3091.9	3088.0	3061.0	3041.8	2995.6	2937.9	2903.2	2857.0	2841.6
27.5°	2984.0	2972.5	2937.9	2937.9	2907.0	2895.5	2853.1	2799.2	2772.2	2729.9	2710.6
30°	2799.2	2783.9	2764.6	2760.8	2733.8	2722.2	2683.8	2633.6	2606.8	2572.0	2564.4
32.5°	2579.8	2568.2	2556.6	2552.8	2525.9	2514.2	2487.4	2437.2	2414.2	2383.4	2371.9
35°	2325.6	2317.9	2306.4	2302.5	2291.0	2279.4	2252.5	2214.0	2202.4	2179.4	2167.8
37.5°	2033.0	2040.8	2033.0	2033.0	2021.5	2025.2	2002.2	1979.1	1967.5	1952.1	1944.5
40°	1717.2	1732.6	1744.2	1744.2	1740.4	1755.8	1751.9	1732.6	1728.9	1721.1	1717.2
42.5°	1397.8	1405.4	1428.5	1443.9	1440.0	1478.5	1482.4	1497.8	1509.4	1501.6	1505.5
45°	1062.8	1085.8	1116.6	1132.0	1151.2	1201.4	1228.2	1259.1	1286.0	1301.4	1297.6
47.5°	766.2	793.1	827.9	850.9	885.6	947.2	1016.5	1055.0	1093.5	1112.8	1132.0
50°	554.5	581.4	623.8	658.4	681.5	766.2	839.4	889.5	931.8	958.8	978.0
52.5°	388.9	419.8	465.9	496.8	531.4	612.2	696.9	754.6	800.9	835.5	854.8
55°	269.5	304.1	346.5	377.4	415.9	500.5	581.4	643.0	693.1	723.9	747.0
57.5°	188.6	219.5	261.9	288.8	327.2	408.1	489.0	550.6	600.6	631.5	658.4
60°	127.1	157.9	200.2	227.1	258.0	338.9	412.0	477.5	523.6	554.5	581.4
62.5°	88.5	115.5	157.9	184.9	211.8	281.1	350.4	408.1	454.4	489.0	512.1
65°	69.2	92.4	127.1	150.1	177.1	234.9	292.6	342.6	388.9	423.5	439.0
67.5°	50.0	73.1	100.1	119.4	138.6	188.6	238.8	277.2	319.6	346.5	365.8
70°	34.6	50.0	73.1	88.5	104.0	142.5	181.0	215.6	246.4	265.6	281.1
72.5°	27.0	34.6	50.0	61.6	73.1	100.1	130.9	157.9	181.0	196.4	211.8
75°	15.4	23.1	34.6	42.4	50.0	69.2	88.5	107.8	123.2	134.8	142.5
77.5°	7.8	11.5	19.2	23.1	30.8	42.4	57.8	69.2	80.9	88.5	96.2
80°	7.8	7.8	11.5	11.5	15.4	23.1	30.8	38.5	46.2	53.9	57.8
82.5°	3.9	3.9	7.8	7.8	7.8	11.5	15.4	23.1	27.0	30.8	34.6
85°	3.9	3.9	3.9	3.9	3.9	7.8	7.8	11.5	15.4	19.2	19.2
87.5°	0.0	0.0	3.9	3.9	3.9	3.9	3.9	7.8	7.8	7.8	11.5
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: P252617

CATALOG NUMBER: LE_6B50D010R EC6B30509035 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6	3330.6
2.5°	3319.0	3326.8	3322.9	3330.6	3319.0	3315.1	3322.9	3311.4
5°	3276.6	3280.5	3276.6	3276.6	3269.0	3261.2	3269.0	3257.4
7.5°	3211.2	3211.2	3199.6	3199.6	3184.2	3176.6	3176.6	3172.8
10°	3157.4	3145.8	3134.2	3138.1	3115.0	3107.2	3103.4	3099.6
12.5°	3130.4	3122.6	3103.4	3103.4	3080.2	3072.6	3068.8	3064.9
15°	3099.6	3084.1	3068.8	3064.9	3045.6	3038.0	3034.1	3026.4
17.5°	3045.6	3034.1	3014.9	3014.9	2995.6	2991.8	2984.0	2980.2
20°	2987.9	2972.5	2957.1	2957.1	2934.0	2934.0	2922.5	2926.2
22.5°	2907.0	2895.5	2880.1	2880.1	2860.9	2857.0	2845.5	2841.6
25°	2810.8	2795.4	2783.9	2780.0	2764.6	2756.9	2753.0	2745.4
27.5°	2683.8	2672.1	2660.6	2652.9	2633.6	2629.9	2618.2	2622.1
30°	2525.9	2518.1	2514.2	2506.6	2483.5	2475.8	2475.8	2464.2
32.5°	2352.6	2341.0	2333.4	2321.8	2302.5	2298.6	2287.1	2291.0
35°	2140.9	2125.4	2113.9	2117.8	2094.6	2090.8	2083.0	2086.9
37.5°	1921.4	1906.0	1890.5	1886.8	1867.5	1867.5	1855.9	1855.9
40°	1694.1	1678.8	1671.1	1671.1	1648.0	1651.9	1640.2	1636.4
42.5°	1490.1	1474.8	1470.9	1467.0	1455.5	1451.6	1440.0	1443.9
45°	1297.6	1293.8	1293.8	1286.0	1274.5	1270.6	1274.5	1274.5
47.5°	1128.1	1132.0	1128.1	1128.1	1120.5	1128.1	1120.5	1124.4
50°	985.8	993.4	993.4	993.4	989.5	993.4	993.4	997.2
52.5°	866.4	877.9	874.0	877.9	874.0	881.8	877.9	881.8
55°	762.4	770.1	773.9	777.8	777.8	777.8	777.8	777.8
57.5°	666.1	677.6	681.5	685.4	685.4	693.1	685.4	685.4
60°	589.1	600.6	604.5	608.4	608.4	612.2	604.5	608.4
62.5°	519.8	531.4	531.4	535.2	535.2	535.2	527.5	531.4
65°	450.5	454.4	458.2	458.2	454.4	454.4	450.5	454.4
67.5°	373.5	377.4	373.5	373.5	369.6	369.6	361.9	365.8
70°	288.8	288.8	292.6	288.8	284.9	288.8	284.9	281.1
72.5°	215.6	215.6	215.6	211.8	211.8	207.9	211.8	211.8
75°	146.4	146.4	150.1	150.1	150.1	150.1	146.4	146.4
77.5°	96.2	96.2	96.2	96.2	100.1	96.2	96.2	96.2
80°	61.6	61.6	65.5	65.5	61.6	61.6	61.6	61.6
82.5°	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
85°	23.1	23.1	23.1	23.1	19.2	19.2	19.2	19.2
87.5°	11.5	11.5	11.5	11.5	11.5	11.5	7.8	7.8
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)