

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: P252604

Luminaire Tested: **LE_6B40D010 EC6B30509035 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252604
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_6B40D010 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: 4508.7 lumens
Efficiency: N/A
Efficacy: 104.9 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

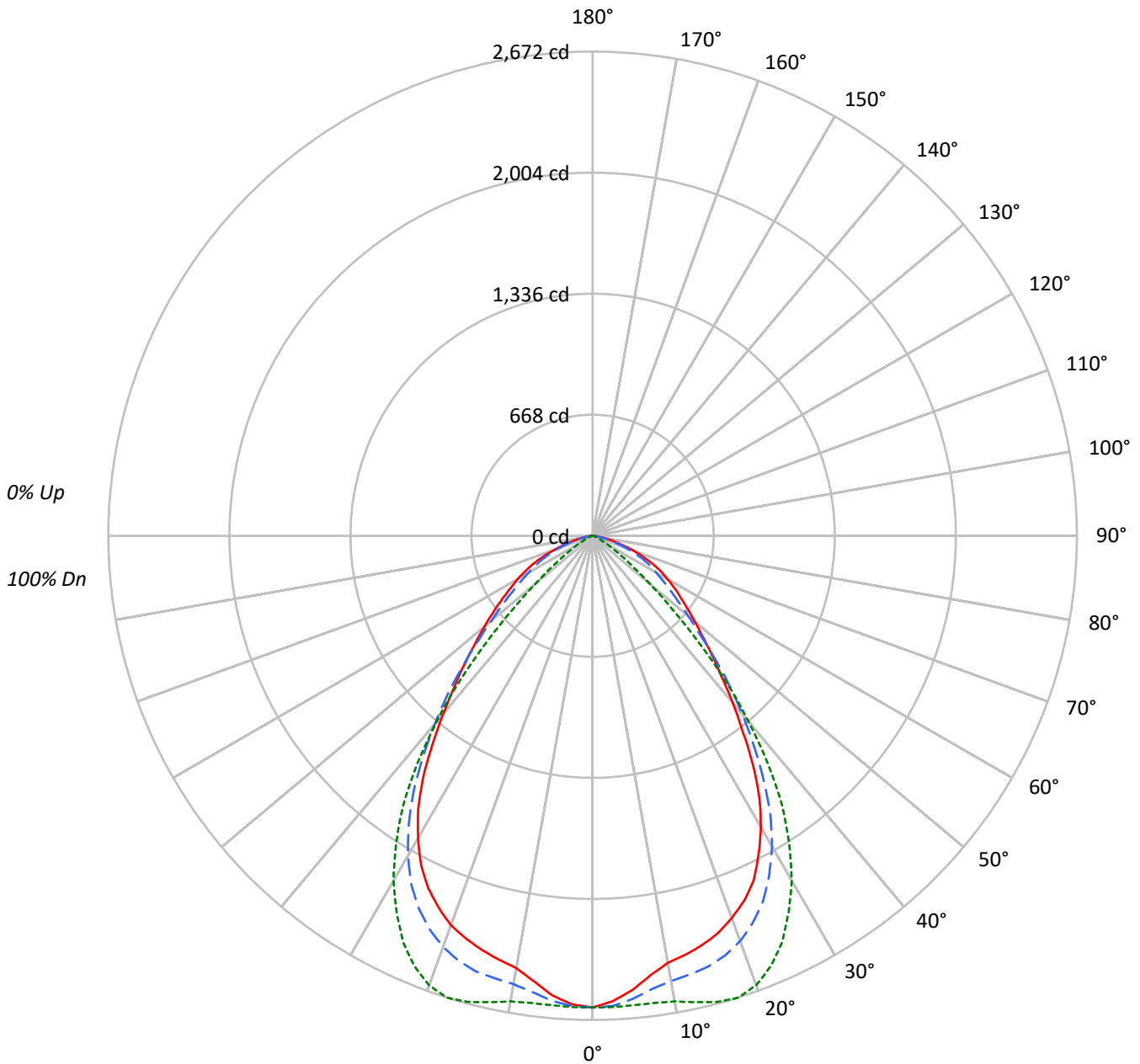
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	169828	169828	169828
5°	164766	170280	166737
10°	158496	172845	160484
15°	157927	179892	159764
20°	155865	183233	158788
25°	151205	178077	154466
30°	139879	165500	145092
35°	122716	145494	129907
40°	102267	114045	108927
45°	86073	75241	91904
50°	74519	41228	79106
55°	67439	21907	69145
60°	62044	11378	62044
65°	56207	6036	54818
70°	45361	3434	41889
75°	31105	2269	28837
80°	20326	1127	18071
85°	13474	2246	11228



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.7	5.4
10°-20°	701.9	15.6
20°-30°	1037.1	23.0
30°-40°	1047.5	23.2
40°-50°	722.0	16.0
50°-60°	414.7	9.2
60°-70°	241.3	5.4
70°-80°	88.0	2.0
80°-90°	13.4	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°	1981.7	44.0
0°-40°	3029.2	67.2
0°-60°	4165.9	92.4
0°-90°	4508.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4508.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2603	2603	2603	2603	2603	
5°	2516	2564	2600	2576	2546	236
15°	2338	2462	2663	2489	2365	659
25°	2100	2224	2474	2269	2146	957
35°	1541	1646	1827	1721	1631	956
45°	933	945	816	1005	996	725
55°	593	521	193	542	608	534
65°	364	307	39	304	355	357
75°	123	99	9	96	114	139
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°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2570.0	2573.0	2576.0	2573.0	2576.0	2588.1	2579.0	2585.1	2585.1	2588.1	2597.1
5°	2515.9	2515.9	2521.9	2518.9	2527.9	2539.9	2530.9	2539.9	2543.0	2549.0	2564.0
7.5°	2446.6	2446.6	2449.6	2449.6	2461.6	2473.8	2467.8	2479.8	2491.8	2503.9	2521.9
10°	2392.5	2398.5	2398.5	2401.5	2413.5	2428.6	2425.6	2440.6	2452.6	2470.8	2494.8
12.5°	2368.4	2371.4	2371.4	2377.4	2389.5	2404.5	2401.5	2416.5	2434.6	2455.6	2479.8
15°	2338.2	2344.4	2341.2	2347.4	2359.4	2374.4	2371.4	2386.5	2407.5	2428.6	2461.6
17.5°	2299.1	2302.1	2305.2	2305.2	2317.2	2329.2	2329.2	2344.4	2368.4	2392.5	2428.6
20°	2245.0	2251.0	2251.0	2254.0	2263.1	2281.1	2278.1	2293.1	2317.2	2341.2	2380.4
22.5°	2181.8	2184.9	2184.9	2187.9	2202.9	2211.9	2214.9	2227.0	2248.0	2275.1	2311.2
25°	2100.5	2103.6	2100.5	2109.6	2115.6	2133.6	2127.6	2142.8	2166.8	2187.9	2224.0
27.5°	1983.2	1989.2	1989.2	1992.2	2007.2	2022.4	2022.4	2037.4	2058.4	2073.5	2109.6
30°	1856.8	1865.9	1856.8	1871.9	1877.9	1889.9	1898.9	1908.0	1926.0	1947.1	1980.1
32.5°	1712.4	1709.4	1712.4	1718.4	1736.4	1745.5	1751.5	1760.5	1778.5	1796.6	1823.8
35°	1540.8	1546.9	1549.9	1561.9	1561.9	1576.9	1579.9	1586.0	1613.0	1625.1	1646.1
37.5°	1360.2	1366.2	1369.2	1375.2	1387.4	1393.4	1402.4	1411.4	1429.5	1450.5	1462.6
40°	1200.8	1200.8	1203.8	1209.8	1218.8	1221.9	1230.9	1242.9	1254.9	1273.0	1285.0
42.5°	1050.2	1053.2	1050.2	1056.2	1065.4	1077.4	1074.4	1089.4	1092.4	1104.5	1113.5
45°	932.9	932.9	926.9	932.9	932.9	945.0	942.0	948.0	945.0	951.0	945.0
47.5°	821.6	824.6	821.6	824.6	824.6	824.6	827.6	821.6	824.6	815.5	797.5
50°	734.2	737.2	731.2	734.2	731.2	728.2	731.2	722.2	719.2	707.2	689.1
52.5°	659.0	656.0	653.0	653.0	653.0	650.0	647.0	638.0	629.0	616.9	595.9
55°	592.9	589.9	586.9	586.9	580.9	577.8	577.8	568.8	559.8	544.8	520.6
57.5°	532.6	529.6	526.6	526.6	523.6	517.6	517.6	508.6	496.5	478.5	457.4
60°	475.5	475.5	475.5	472.5	472.5	466.5	466.5	457.4	445.4	427.4	403.2
62.5°	424.4	421.4	421.4	421.4	421.4	418.2	415.2	409.2	397.2	379.1	358.1
65°	364.1	364.1	364.1	364.1	361.1	361.1	361.1	352.1	346.1	328.0	307.0
67.5°	297.9	297.9	297.9	297.9	294.9	297.9	297.9	291.9	285.9	267.9	249.8
70°	237.8	234.8	231.8	234.8	231.8	231.8	234.8	228.8	225.8	210.6	192.6
72.5°	174.5	177.5	174.5	174.5	174.5	171.5	174.5	171.5	165.5	153.5	141.5
75°	123.4	126.4	126.4	123.4	123.4	123.4	120.4	120.4	114.4	105.4	99.2
77.5°	84.2	84.2	84.2	84.2	81.2	81.2	81.2	78.2	75.2	69.2	63.2
80°	54.1	54.1	54.1	54.1	51.1	51.1	51.1	48.1	48.1	42.1	36.1
82.5°	33.1	33.1	33.1	33.1	33.1	33.1	30.1	30.1	27.1	24.1	21.1
85°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	15.0	15.0	12.0	9.0
87.5°	6.0	6.0	9.0	9.0	9.0	9.0	9.0	9.0	6.0	6.0	6.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2591.1	2594.1	2594.1	2594.1	2603.1	2606.1	2597.1	2588.1	2606.1	2603.1	2609.1
5°	2561.0	2570.0	2576.0	2579.0	2588.1	2594.1	2585.1	2582.0	2597.1	2600.1	2603.1
7.5°	2524.9	2539.9	2555.0	2561.0	2573.0	2579.0	2576.0	2576.0	2594.1	2600.1	2600.1
10°	2500.8	2521.9	2539.9	2555.0	2570.0	2579.0	2579.0	2582.0	2603.1	2609.1	2615.1
12.5°	2494.8	2521.9	2546.0	2567.0	2579.0	2594.1	2597.1	2606.1	2627.2	2636.2	2636.2
15°	2479.8	2515.9	2546.0	2573.0	2591.1	2609.1	2615.1	2633.2	2657.2	2663.4	2669.4
17.5°	2452.6	2488.8	2524.9	2558.0	2582.0	2597.1	2615.1	2633.2	2663.4	2672.4	2675.4
20°	2404.5	2446.6	2482.8	2515.9	2539.9	2561.0	2579.0	2600.1	2627.2	2639.2	2642.2
22.5°	2332.2	2374.4	2410.5	2446.6	2470.8	2488.8	2506.9	2530.9	2558.0	2570.0	2570.0
25°	2245.0	2284.1	2323.2	2350.4	2374.4	2395.5	2404.5	2431.6	2458.6	2473.8	2473.8
27.5°	2133.6	2169.8	2205.9	2236.0	2251.0	2269.1	2284.1	2308.2	2329.2	2341.2	2353.4
30°	1992.2	2028.4	2061.4	2091.5	2109.6	2127.6	2142.8	2160.8	2181.8	2196.9	2199.9
32.5°	1838.8	1868.9	1901.9	1932.0	1950.1	1956.1	1971.1	1989.2	2007.2	2019.2	2022.4
35°	1670.2	1691.2	1712.4	1739.4	1757.5	1757.5	1772.5	1784.6	1799.6	1826.8	1820.6
37.5°	1471.6	1501.8	1516.8	1525.8	1537.8	1549.9	1552.9	1567.9	1586.0	1592.0	1601.0
40°	1285.0	1294.0	1303.1	1303.1	1315.1	1315.1	1315.1	1318.1	1336.1	1339.1	1351.2
42.5°	1098.4	1098.4	1089.4	1080.4	1083.4	1080.4	1065.4	1065.4	1074.4	1086.4	1086.4
45°	923.9	902.9	875.8	854.6	839.6	833.6	815.5	815.5	812.5	815.5	827.6
47.5°	776.4	740.2	695.1	653.0	638.0	626.0	598.9	586.9	580.9	583.9	589.9
50°	653.0	613.9	562.8	511.6	484.5	469.5	436.4	415.2	412.2	406.2	418.2
52.5°	562.8	514.6	460.4	400.2	373.1	349.1	313.0	294.9	282.9	282.9	285.9
55°	484.5	433.4	373.1	313.0	285.9	267.9	231.8	207.6	195.6	192.6	201.6
57.5°	418.2	370.1	310.0	249.8	222.8	201.6	165.5	144.5	135.4	129.4	132.4
60°	367.1	319.0	258.8	201.6	177.5	153.5	123.4	99.2	87.2	87.2	90.2
62.5°	319.0	273.9	219.6	165.5	144.5	123.4	90.2	69.2	60.2	57.1	60.2
65°	270.9	228.8	183.6	138.4	117.4	99.2	72.2	54.1	42.1	39.1	42.1
67.5°	219.6	186.6	147.5	111.4	93.2	78.2	54.1	39.1	30.1	27.1	30.1
70°	171.5	141.5	111.4	81.2	69.2	57.1	39.1	30.1	21.1	18.0	21.1
72.5°	123.4	102.4	78.2	57.1	48.1	39.1	27.1	21.1	15.0	12.0	15.0
75°	84.2	69.2	51.1	36.1	30.1	27.1	18.0	12.0	9.0	9.0	9.0
77.5°	54.1	42.1	33.1	24.1	18.0	15.0	9.0	6.0	6.0	6.0	6.0
80°	30.1	24.1	18.0	12.0	9.0	9.0	6.0	6.0	3.0	3.0	3.0
82.5°	18.0	12.0	9.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	9.0	6.0	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°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2597.1	2600.1	2591.1	2603.1	2594.1	2606.1	2606.1	2594.1	2597.1	2591.1	2603.1
5°	2591.1	2591.1	2585.1	2594.1	2582.0	2594.1	2591.1	2570.0	2576.0	2564.0	2576.0
7.5°	2591.1	2585.1	2576.0	2585.1	2570.0	2579.0	2567.0	2546.0	2539.9	2524.9	2524.9
10°	2600.1	2591.1	2579.0	2582.0	2567.0	2570.0	2552.0	2521.9	2512.9	2494.8	2488.8
12.5°	2621.1	2612.1	2594.1	2600.1	2579.0	2579.0	2555.0	2518.9	2500.8	2476.8	2470.8
15°	2651.2	2636.2	2615.1	2618.1	2597.1	2585.1	2555.0	2512.9	2488.8	2455.6	2446.6
17.5°	2657.2	2642.2	2615.1	2615.1	2588.1	2573.0	2536.9	2488.8	2458.6	2425.6	2407.5
20°	2624.2	2609.1	2579.0	2576.0	2552.0	2530.9	2491.8	2443.6	2413.5	2377.4	2362.4
22.5°	2555.0	2536.9	2509.9	2506.9	2482.8	2470.8	2428.6	2380.4	2350.4	2314.2	2302.1
25°	2452.6	2443.6	2416.5	2413.5	2392.5	2377.4	2341.2	2296.1	2269.1	2233.0	2220.9
27.5°	2332.2	2323.2	2296.1	2296.1	2272.1	2263.1	2230.0	2187.9	2166.8	2133.6	2118.6
30°	2187.9	2175.8	2160.8	2157.8	2136.6	2127.6	2097.5	2058.4	2037.4	2010.2	2004.2
32.5°	2016.2	2007.2	1998.2	1995.2	1974.1	1965.1	1944.1	1905.0	1886.9	1862.9	1853.8
35°	1817.6	1811.6	1802.6	1799.6	1790.6	1781.5	1760.5	1730.4	1721.4	1703.4	1694.2
37.5°	1589.0	1595.0	1589.0	1589.0	1579.9	1583.0	1564.9	1546.9	1537.8	1525.8	1519.8
40°	1342.2	1354.2	1363.2	1363.2	1360.2	1372.2	1369.2	1354.2	1351.2	1345.2	1342.2
42.5°	1092.4	1098.4	1116.5	1128.5	1125.5	1155.6	1158.6	1170.6	1179.6	1173.6	1176.6
45°	830.6	848.6	872.8	884.8	899.8	938.9	960.0	984.1	1005.1	1017.1	1014.1
47.5°	598.9	619.9	647.0	665.1	692.1	740.2	794.5	824.6	854.6	869.8	884.8
50°	433.4	454.4	487.5	514.6	532.6	598.9	656.0	695.1	728.2	749.4	764.4
52.5°	304.0	328.0	364.1	388.2	415.2	478.5	544.8	589.9	626.0	653.0	668.1
55°	210.6	237.8	270.9	294.9	325.0	391.2	454.4	502.6	541.8	565.8	583.9
57.5°	147.5	171.5	204.6	225.8	255.8	319.0	382.2	430.4	469.5	493.5	514.6
60°	99.2	123.4	156.5	177.5	201.6	264.9	322.0	373.1	409.2	433.4	454.4
62.5°	69.2	90.2	123.4	144.5	165.5	219.6	273.9	319.0	355.1	382.2	400.2
65°	54.1	72.2	99.2	117.4	138.4	183.6	228.8	267.9	304.0	331.0	343.1
67.5°	39.1	57.1	78.2	93.2	108.4	147.5	186.6	216.6	249.8	270.9	285.9
70°	27.1	39.1	57.1	69.2	81.2	111.4	141.5	168.5	192.6	207.6	219.6
72.5°	21.1	27.1	39.1	48.1	57.1	78.2	102.4	123.4	141.5	153.5	165.5
75°	12.0	18.0	27.1	33.1	39.1	54.1	69.2	84.2	96.2	105.4	111.4
77.5°	6.0	9.0	15.0	18.0	24.1	33.1	45.1	54.1	63.2	69.2	75.2
80°	6.0	6.0	9.0	9.0	12.0	18.0	24.1	30.1	36.1	42.1	45.1
82.5°	3.0	3.0	6.0	6.0	6.0	9.0	12.0	18.0	21.1	24.1	27.1
85°	3.0	3.0	3.0	3.0	3.0	6.0	6.0	9.0	12.0	15.0	15.0
87.5°	0.0	0.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	6.0	9.0
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: P252604

CATALOG NUMBER: LE_6B40D010 EC6B30509035 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2594.1	2600.1	2597.1	2603.1	2594.1	2591.1	2597.1	2588.1
5°	2561.0	2564.0	2561.0	2561.0	2555.0	2549.0	2555.0	2546.0
7.5°	2509.9	2509.9	2500.8	2500.8	2488.8	2482.8	2482.8	2479.8
10°	2467.8	2458.6	2449.6	2452.6	2434.6	2428.6	2425.6	2422.5
12.5°	2446.6	2440.6	2425.6	2425.6	2407.5	2401.5	2398.5	2395.5
15°	2422.5	2410.5	2398.5	2395.5	2380.4	2374.4	2371.4	2365.4
17.5°	2380.4	2371.4	2356.4	2356.4	2341.2	2338.2	2332.2	2329.2
20°	2335.2	2323.2	2311.2	2311.2	2293.1	2293.1	2284.1	2287.1
22.5°	2272.1	2263.1	2251.0	2251.0	2236.0	2233.0	2224.0	2220.9
25°	2196.9	2184.9	2175.8	2172.8	2160.8	2154.8	2151.8	2145.8
27.5°	2097.5	2088.5	2079.5	2073.5	2058.4	2055.4	2046.4	2049.4
30°	1974.1	1968.1	1965.1	1959.1	1941.0	1935.0	1935.0	1926.0
32.5°	1838.8	1829.8	1823.8	1814.6	1799.6	1796.6	1787.6	1790.6
35°	1673.2	1661.1	1652.1	1655.1	1637.1	1634.1	1628.1	1631.1
37.5°	1501.8	1489.6	1477.6	1474.6	1459.5	1459.5	1450.5	1450.5
40°	1324.1	1312.1	1306.1	1306.1	1288.0	1291.0	1282.0	1279.0
42.5°	1164.6	1152.6	1149.6	1146.6	1137.5	1134.5	1125.5	1128.5
45°	1014.1	1011.1	1011.1	1005.1	996.1	993.1	996.1	996.1
47.5°	881.8	884.8	881.8	881.8	875.8	881.8	875.8	878.8
50°	770.4	776.4	776.4	776.4	773.4	776.4	776.4	779.4
52.5°	677.1	686.1	683.1	686.1	683.1	689.1	686.1	689.1
55°	595.9	601.9	604.9	607.9	607.9	607.9	607.9	607.9
57.5°	520.6	529.6	532.6	535.6	535.6	541.8	535.6	535.6
60°	460.4	469.5	472.5	475.5	475.5	478.5	472.5	475.5
62.5°	406.2	415.2	415.2	418.2	418.2	418.2	412.2	415.2
65°	352.1	355.1	358.1	358.1	355.1	355.1	352.1	355.1
67.5°	291.9	294.9	291.9	291.9	288.9	288.9	282.9	285.9
70°	225.8	225.8	228.8	225.8	222.8	225.8	222.8	219.6
72.5°	168.5	168.5	168.5	165.5	165.5	162.5	165.5	165.5
75°	114.4	114.4	117.4	117.4	117.4	117.4	114.4	114.4
77.5°	75.2	75.2	75.2	75.2	78.2	75.2	75.2	75.2
80°	48.1	48.1	51.1	51.1	48.1	48.1	48.1	48.1
82.5°	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
85°	18.0	18.0	18.0	18.0	15.0	15.0	15.0	15.0
87.5°	9.0	9.0	9.0	9.0	9.0	9.0	6.0	6.0
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)