

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: P252605

Luminaire Tested: **LE\_6B40D010 EC6B30509040 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252605  
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 EC6B30509040 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4516.2 lumens  
Efficiency: N/A  
Efficacy: 105.0 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

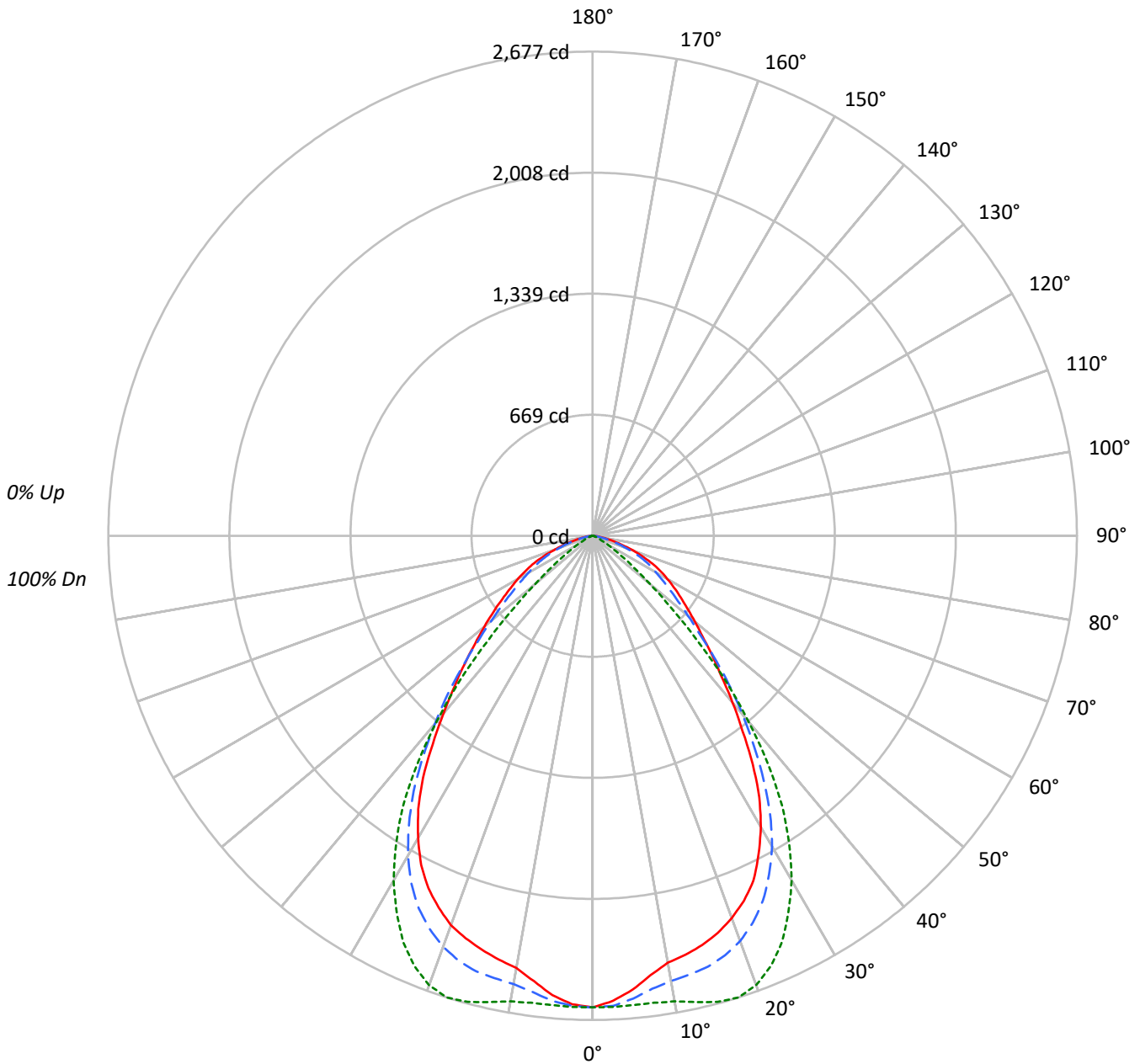
Input Watts (W): 43  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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°	170115	170115	170115
5°	165034	170568	167006
10°	158761	173137	160755
15°	158197	180189	160034
20°	156129	183539	159059
25°	151457	178372	154710
30°	140113	165771	145333
35°	122923	145733	130123
40°	102437	114241	109106
45°	86221	75371	92061
50°	74651	41309	79248
55°	67552	21941	69258
60°	62135	11404	62135
65°	56315	6036	54926
70°	45418	3453	41965
75°	31156	2269	28862
80°	20363	1127	18109
85°	13549	2246	11303



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	243.1	5.4
10°-20°	703.1	15.6
20°-30°	1038.8	23.0
30°-40°	1049.2	23.2
40°-50°	723.2	16.0
50°-60°	415.4	9.2
60°-70°	241.7	5.4
70°-80°	88.2	2.0
80°-90°	13.5	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°	1985.0	44.0
0°-40°	3034.3	67.2
0°-60°	4172.8	92.4
0°-90°	4516.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4516.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2608	2608	2608	2608	2608	
5°	2520	2568	2604	2580	2550	236
15°	2342	2466	2668	2493	2369	660
25°	2104	2228	2478	2273	2149	959
35°	1543	1649	1830	1724	1634	958
45°	934	946	817	1007	998	727
55°	594	522	193	543	609	535
65°	365	308	39	304	356	357
75°	124	100	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°	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5
2.5°	2574.2	2577.2	2580.4	2577.2	2580.4	2592.4	2583.4	2589.4	2589.4	2592.4	2601.4
5°	2520.0	2520.0	2526.1	2523.0	2532.1	2544.1	2535.1	2544.1	2547.1	2553.2	2568.2
7.5°	2450.8	2450.8	2453.8	2453.8	2465.8	2477.9	2471.8	2483.9	2495.9	2508.0	2526.1
10°	2396.5	2402.5	2402.5	2405.5	2417.5	2432.6	2429.6	2444.6	2456.8	2474.9	2499.0
12.5°	2372.4	2375.4	2375.4	2381.4	2393.4	2408.5	2405.5	2420.6	2438.6	2459.8	2483.9
15°	2342.2	2348.2	2345.2	2351.2	2363.2	2378.4	2375.4	2390.4	2411.5	2432.6	2465.8
17.5°	2303.0	2306.0	2309.0	2309.0	2321.1	2333.1	2333.1	2348.2	2372.4	2396.5	2432.6
20°	2248.8	2254.8	2254.8	2257.8	2266.9	2284.9	2281.9	2297.0	2321.1	2345.2	2384.4
22.5°	2185.5	2188.5	2188.5	2191.5	2206.5	2215.6	2218.6	2230.6	2251.8	2278.9	2315.0
25°	2104.0	2107.1	2104.0	2113.1	2119.1	2137.2	2131.1	2146.2	2170.4	2191.5	2227.6
27.5°	1986.5	1992.5	1992.5	1995.5	2010.6	2025.6	2025.6	2040.8	2061.9	2076.9	2113.1
30°	1859.9	1868.9	1859.9	1875.0	1881.0	1893.0	1902.1	1911.1	1929.2	1950.4	1983.5
32.5°	1715.2	1712.1	1715.2	1721.2	1739.2	1748.4	1754.4	1763.4	1781.5	1799.6	1826.8
35°	1543.4	1549.4	1552.4	1564.5	1564.5	1579.5	1582.5	1588.6	1615.8	1627.8	1648.9
37.5°	1362.5	1368.5	1371.5	1377.6	1389.6	1395.6	1404.8	1413.8	1431.9	1453.0	1465.0
40°	1202.8	1202.8	1205.8	1211.8	1220.9	1223.9	1232.9	1245.0	1257.0	1275.1	1287.1
42.5°	1052.0	1055.0	1052.0	1058.0	1067.1	1079.1	1076.1	1091.2	1094.2	1106.2	1115.4
45°	934.5	934.5	928.4	934.5	934.5	946.5	943.5	949.5	946.5	952.5	946.5
47.5°	822.9	826.0	822.9	826.0	826.0	826.0	829.0	822.9	826.0	816.9	798.9
50°	735.5	738.5	732.5	735.5	732.5	729.5	732.5	723.5	720.5	708.4	690.2
52.5°	660.1	657.1	654.1	654.1	654.1	651.1	648.1	639.0	630.0	618.0	596.9
55°	593.9	590.9	587.8	587.8	581.8	578.8	578.8	569.8	560.6	545.6	521.5
57.5°	533.5	530.5	527.5	527.5	524.5	518.5	518.5	509.4	497.4	479.2	458.2
60°	476.2	476.2	476.2	473.2	473.2	467.2	467.2	458.2	446.1	428.0	403.9
62.5°	425.0	422.0	422.0	422.0	422.0	419.0	416.0	410.0	397.9	379.9	358.8
65°	364.8	364.8	364.8	364.8	361.8	361.8	361.8	352.6	346.6	328.6	307.5
67.5°	298.4	298.4	298.4	298.4	295.4	298.4	298.4	292.4	286.4	268.2	250.2
70°	238.1	235.1	232.1	235.1	232.1	232.1	235.1	229.1	226.1	211.0	192.9
72.5°	174.9	177.9	174.9	174.9	174.9	171.9	174.9	171.9	165.8	153.8	141.6
75°	123.6	126.6	126.6	123.6	123.6	123.6	120.6	120.6	114.5	105.5	99.5
77.5°	84.4	84.4	84.4	84.4	81.4	81.4	81.4	78.4	75.4	69.4	63.2
80°	54.2	54.2	54.2	54.2	51.2	51.2	51.2	48.2	48.2	42.2	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°	18.1	18.1	18.1	18.1	18.1	18.1	18.1	15.1	15.1	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°	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5
2.5°	2595.4	2598.4	2598.4	2598.4	2607.5	2610.5	2601.4	2592.4	2610.5	2607.5	2613.5
5°	2565.2	2574.2	2580.4	2583.4	2592.4	2598.4	2589.4	2586.4	2601.4	2604.5	2607.5
7.5°	2529.1	2544.1	2559.2	2565.2	2577.2	2583.4	2580.4	2580.4	2598.4	2604.5	2604.5
10°	2505.0	2526.1	2544.1	2559.2	2574.2	2583.4	2583.4	2586.4	2607.5	2613.5	2619.5
12.5°	2499.0	2526.1	2550.1	2571.2	2583.4	2598.4	2601.4	2610.5	2631.6	2640.6	2640.6
15°	2483.9	2520.0	2550.1	2577.2	2595.4	2613.5	2619.5	2637.6	2661.8	2667.8	2673.8
17.5°	2456.8	2492.9	2529.1	2562.2	2586.4	2601.4	2619.5	2637.6	2667.8	2676.8	2679.8
20°	2408.5	2450.8	2486.9	2520.0	2544.1	2565.2	2583.4	2604.5	2631.6	2643.6	2646.6
22.5°	2336.1	2378.4	2414.5	2450.8	2474.9	2492.9	2511.0	2535.1	2562.2	2574.2	2574.2
25°	2248.8	2287.9	2327.1	2354.2	2378.4	2399.5	2408.5	2435.6	2462.8	2477.9	2477.9
27.5°	2137.2	2173.4	2209.5	2239.8	2254.8	2272.9	2287.9	2312.0	2333.1	2345.2	2357.2
30°	1995.5	2031.8	2064.9	2095.0	2113.1	2131.1	2146.2	2164.4	2185.5	2200.5	2203.5
32.5°	1841.8	1872.0	1905.1	1935.2	1953.4	1959.4	1974.4	1992.5	2010.6	2022.6	2025.6
35°	1673.0	1694.1	1715.2	1742.4	1760.4	1760.4	1775.5	1787.5	1802.6	1829.8	1823.8
37.5°	1474.0	1504.1	1519.2	1528.2	1540.4	1552.4	1555.4	1570.5	1588.6	1594.6	1603.6
40°	1287.1	1296.2	1305.2	1305.2	1317.2	1317.2	1317.2	1320.2	1338.4	1341.4	1353.5
42.5°	1100.2	1100.2	1091.2	1082.1	1085.1	1082.1	1067.1	1067.1	1076.1	1088.2	1088.2
45°	925.4	904.4	877.2	856.1	841.0	835.0	816.9	816.9	813.9	816.9	829.0
47.5°	777.8	741.5	696.4	654.1	639.0	627.0	599.9	587.8	581.8	584.8	590.9
50°	654.1	615.0	563.8	512.5	485.4	470.2	437.1	416.0	413.0	407.0	419.0
52.5°	563.8	515.5	461.2	400.9	373.8	349.6	313.5	295.4	283.4	283.4	286.4
55°	485.4	434.1	373.8	313.5	286.4	268.2	232.1	208.0	195.9	192.9	202.0
57.5°	419.0	370.8	310.5	250.2	223.1	202.0	165.8	144.8	135.6	129.6	132.6
60°	367.8	319.5	259.2	202.0	177.9	153.8	123.6	99.5	87.4	87.4	90.4
62.5°	319.5	274.2	220.0	165.8	144.8	123.6	90.4	69.4	60.2	57.2	60.2
65°	271.2	229.1	183.9	138.6	117.5	99.5	72.4	54.2	42.2	39.1	42.2
67.5°	220.0	186.9	147.8	111.5	93.5	78.4	54.2	39.1	30.1	27.1	30.1
70°	171.9	141.6	111.5	81.4	69.4	57.2	39.1	30.1	21.1	18.1	21.1
72.5°	123.6	102.5	78.4	57.2	48.2	39.1	27.1	21.1	15.1	12.0	15.1
75°	84.4	69.4	51.2	36.1	30.1	27.1	18.1	12.0	9.0	9.0	9.0
77.5°	54.2	42.2	33.1	24.1	18.1	15.1	9.0	6.0	6.0	6.0	6.0
80°	30.1	24.1	18.1	12.0	9.0	9.0	6.0	6.0	3.0	3.0	3.0
82.5°	18.1	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°	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5
2.5°	2601.4	2604.5	2595.4	2607.5	2598.4	2610.5	2610.5	2598.4	2601.4	2595.4	2607.5
5°	2595.4	2595.4	2589.4	2598.4	2586.4	2598.4	2595.4	2574.2	2580.4	2568.2	2580.4
7.5°	2595.4	2589.4	2580.4	2589.4	2574.2	2583.4	2571.2	2550.1	2544.1	2529.1	2529.1
10°	2604.5	2595.4	2583.4	2586.4	2571.2	2574.2	2556.2	2526.1	2517.0	2499.0	2492.9
12.5°	2625.5	2616.5	2598.4	2604.5	2583.4	2583.4	2559.2	2523.0	2505.0	2480.9	2474.9
15°	2655.6	2640.6	2619.5	2622.5	2601.4	2589.4	2559.2	2517.0	2492.9	2459.8	2450.8
17.5°	2661.8	2646.6	2619.5	2619.5	2592.4	2577.2	2541.1	2492.9	2462.8	2429.6	2411.5
20°	2628.5	2613.5	2583.4	2580.4	2556.2	2535.1	2495.9	2447.8	2417.5	2381.4	2366.2
22.5°	2559.2	2541.1	2514.0	2511.0	2486.9	2474.9	2432.6	2384.4	2354.2	2318.1	2306.0
25°	2456.8	2447.8	2420.6	2417.5	2396.5	2381.4	2345.2	2300.0	2272.9	2236.6	2224.6
27.5°	2336.1	2327.1	2300.0	2300.0	2275.9	2266.9	2233.6	2191.5	2170.4	2137.2	2122.1
30°	2191.5	2179.4	2164.4	2161.4	2140.2	2131.1	2101.0	2061.9	2040.8	2013.6	2007.6
32.5°	2019.6	2010.6	2001.5	1998.5	1977.5	1968.4	1947.2	1908.1	1890.0	1865.9	1856.9
35°	1820.8	1814.6	1805.6	1802.6	1793.6	1784.5	1763.4	1733.2	1724.2	1706.1	1697.1
37.5°	1591.6	1597.6	1591.6	1591.6	1582.5	1585.6	1567.5	1549.4	1540.4	1528.2	1522.2
40°	1344.4	1356.5	1365.5	1365.5	1362.5	1374.6	1371.5	1356.5	1353.5	1347.4	1344.4
42.5°	1094.2	1100.2	1118.4	1130.4	1127.4	1157.5	1160.5	1172.6	1181.6	1175.6	1178.6
45°	832.0	850.0	874.1	886.2	901.2	940.5	961.6	985.8	1006.8	1018.9	1015.9
47.5°	599.9	621.0	648.1	666.1	693.2	741.5	795.8	826.0	856.1	871.1	886.2
50°	434.1	455.1	488.4	515.5	533.5	599.9	657.1	696.4	729.5	750.6	765.6
52.5°	304.5	328.6	364.8	388.9	416.0	479.2	545.6	590.9	627.0	654.1	669.2
55°	211.0	238.1	271.2	295.4	325.5	391.9	455.1	503.4	542.6	566.8	584.8
57.5°	147.8	171.9	205.0	226.1	256.2	319.5	382.9	431.0	470.2	494.4	515.5
60°	99.5	123.6	156.8	177.9	202.0	265.2	322.5	373.8	410.0	434.1	455.1
62.5°	69.4	90.4	123.6	144.8	165.8	220.0	274.2	319.5	355.8	382.9	400.9
65°	54.2	72.4	99.5	117.5	138.6	183.9	229.1	268.2	304.5	331.6	343.6
67.5°	39.1	57.2	78.4	93.5	108.5	147.8	186.9	217.0	250.2	271.2	286.4
70°	27.1	39.1	57.2	69.4	81.4	111.5	141.6	168.8	192.9	208.0	220.0
72.5°	21.1	27.1	39.1	48.2	57.2	78.4	102.5	123.6	141.6	153.8	165.8
75°	12.0	18.1	27.1	33.1	39.1	54.2	69.4	84.4	96.5	105.5	111.5
77.5°	6.0	9.0	15.1	18.1	24.1	33.1	45.2	54.2	63.2	69.4	75.4
80°	6.0	6.0	9.0	9.0	12.0	18.1	24.1	30.1	36.1	42.2	45.2
82.5°	3.0	3.0	6.0	6.0	6.0	9.0	12.0	18.1	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	15.1	15.1
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: P252605

CATALOG NUMBER: LE\_6B40D010 EC6B30509040 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5	2607.5
2.5°	2598.4	2604.5	2601.4	2607.5	2598.4	2595.4	2601.4	2592.4
5°	2565.2	2568.2	2565.2	2565.2	2559.2	2553.2	2559.2	2550.1
7.5°	2514.0	2514.0	2505.0	2505.0	2492.9	2486.9	2486.9	2483.9
10°	2471.8	2462.8	2453.8	2456.8	2438.6	2432.6	2429.6	2426.6
12.5°	2450.8	2444.6	2429.6	2429.6	2411.5	2405.5	2402.5	2399.5
15°	2426.6	2414.5	2402.5	2399.5	2384.4	2378.4	2375.4	2369.4
17.5°	2384.4	2375.4	2360.2	2360.2	2345.2	2342.2	2336.1	2333.1
20°	2339.1	2327.1	2315.0	2315.0	2297.0	2297.0	2287.9	2291.0
22.5°	2275.9	2266.9	2254.8	2254.8	2239.8	2236.6	2227.6	2224.6
25°	2200.5	2188.5	2179.4	2176.4	2164.4	2158.2	2155.2	2149.2
27.5°	2101.0	2092.0	2083.0	2076.9	2061.9	2058.9	2049.8	2052.8
30°	1977.5	1971.4	1968.4	1962.4	1944.2	1938.2	1938.2	1929.2
32.5°	1841.8	1832.8	1826.8	1817.6	1802.6	1799.6	1790.5	1793.6
35°	1676.0	1664.0	1654.9	1657.9	1639.9	1636.9	1630.8	1633.8
37.5°	1504.1	1492.1	1480.1	1477.0	1462.0	1462.0	1453.0	1453.0
40°	1326.4	1314.2	1308.2	1308.2	1290.1	1293.1	1284.1	1281.1
42.5°	1166.6	1154.5	1151.5	1148.5	1139.5	1136.4	1127.4	1130.4
45°	1015.9	1012.9	1012.9	1006.8	997.8	994.8	997.8	997.8
47.5°	883.2	886.2	883.2	883.2	877.2	883.2	877.2	880.2
50°	771.6	777.8	777.8	777.8	774.8	777.8	777.8	780.8
52.5°	678.2	687.2	684.2	687.2	684.2	690.2	687.2	690.2
55°	596.9	602.9	605.9	608.9	608.9	608.9	608.9	608.9
57.5°	521.5	530.5	533.5	536.6	536.6	542.6	536.6	536.6
60°	461.2	470.2	473.2	476.2	476.2	479.2	473.2	476.2
62.5°	407.0	416.0	416.0	419.0	419.0	419.0	413.0	416.0
65°	352.6	355.8	358.8	358.8	355.8	355.8	352.6	355.8
67.5°	292.4	295.4	292.4	292.4	289.4	289.4	283.4	286.4
70°	226.1	226.1	229.1	226.1	223.1	226.1	223.1	220.0
72.5°	168.8	168.8	168.8	165.8	165.8	162.8	165.8	165.8
75°	114.5	114.5	117.5	117.5	117.5	117.5	114.5	114.5
77.5°	75.4	75.4	75.4	75.4	78.4	75.4	75.4	75.4
80°	48.2	48.2	51.2	51.2	48.2	48.2	48.2	48.2
82.5°	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
85°	18.1	18.1	18.1	18.1	15.1	15.1	15.1	15.1
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)