

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: P252292

Luminaire Tested: **LE\_6B40D010 EC6B30509035 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252292  
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: PORTFOLIO  
Catalog Number: LE\_6B40D010 EC6B30509035 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4181.2 lumens  
Efficiency: N/A  
Efficacy: 97.2 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

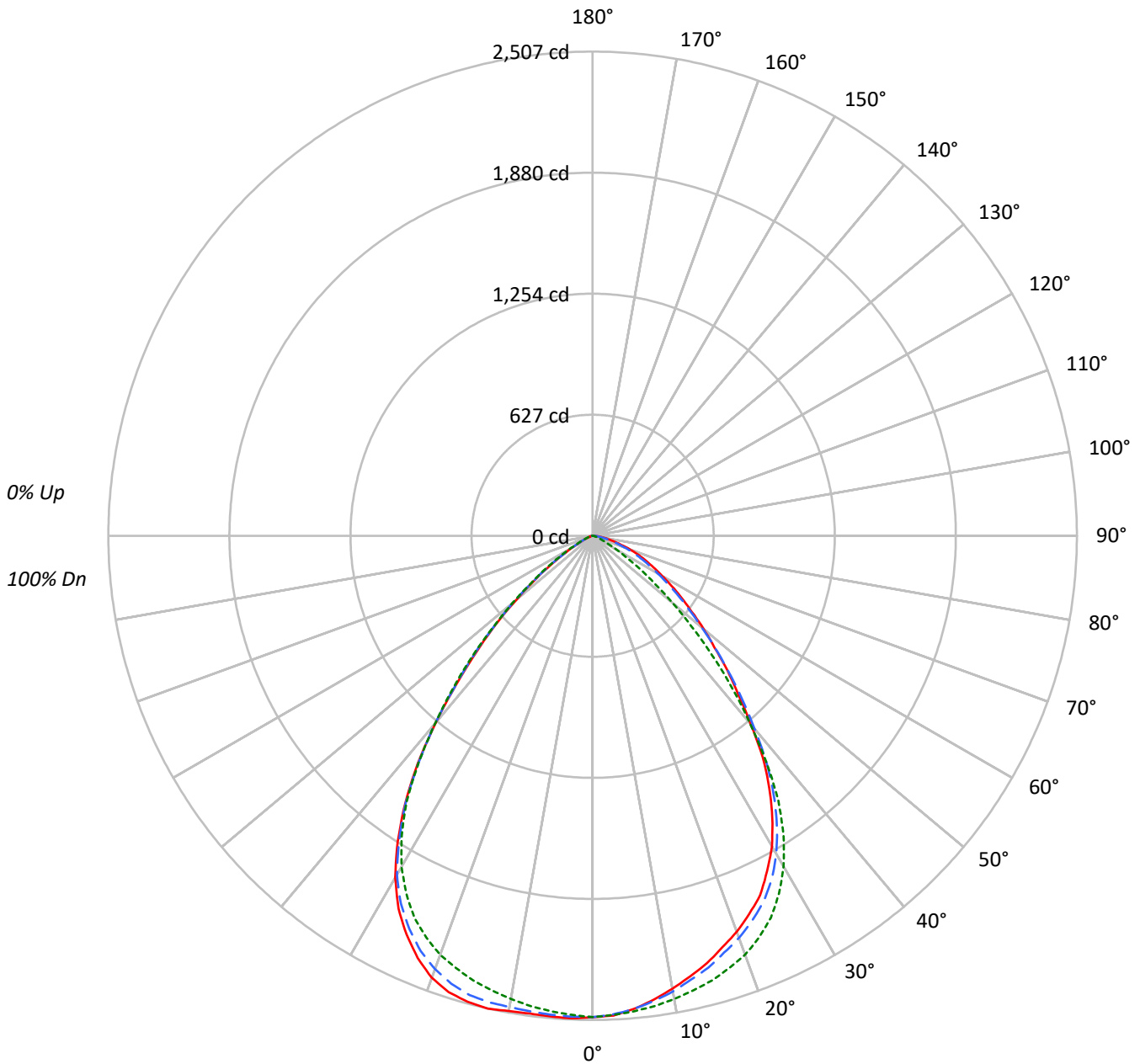
Input Watts (W): 43  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	162593	162593	162593
5°	161046	161838	163607
10°	157728	161318	165498
15°	154712	161014	168734
20°	151505	160281	169063
25°	147778	157086	164025
30°	139902	148979	153966
35°	127048	133531	134726
40°	108433	107922	107411
45°	91083	80814	78323
50°	76072	54686	51946
55°	64026	33554	30472
60°	54202	17680	15318
65°	46929	9293	7425
70°	39028	5742	4025
75°	28837	3781	2269
80°	22617	2254	1127
85°	18040	2246	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.9	5.6
10°-20°	672.5	16.1
20°-30°	993.1	23.8
30°-40°	1023.5	24.5
40°-50°	706.9	16.9
50°-60°	348.4	8.3
60°-70°	141.2	3.4
70°-80°	50.3	1.2
80°-90°	10.4	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°	1900.5	45.5
0°-40°	2924.0	69.9
0°-60°	3979.3	95.2
0°-90°	4181.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4181.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2492	2492	2492	2492	2492	
5°	2459	2459	2471	2489	2498	232
15°	2291	2315	2384	2462	2498	645
25°	2053	2092	2182	2246	2279	938
35°	1595	1634	1677	1686	1692	988
45°	987	993	876	864	849	763
55°	563	542	295	277	268	509
65°	304	274	60	48	48	302
75°	114	96	15	9	9	128
85°	24	18	3	0	0	29
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°	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2
2.5°	2486.2	2477.2	2483.2	2471.2	2486.2	2471.2	2474.2	2477.2	2474.2	2477.2	2480.2
5°	2459.1	2450.1	2459.1	2444.1	2459.1	2450.1	2450.1	2453.1	2453.1	2456.1	2459.1
7.5°	2423.0	2414.0	2423.0	2408.0	2426.0	2417.0	2417.0	2423.0	2420.0	2423.0	2429.1
10°	2380.9	2368.9	2377.9	2368.9	2386.9	2374.9	2380.9	2380.9	2380.9	2390.0	2396.0
12.5°	2335.8	2323.8	2335.8	2320.8	2338.8	2329.8	2332.8	2341.8	2344.8	2350.8	2353.9
15°	2290.6	2275.5	2281.6	2272.5	2290.6	2281.6	2284.6	2296.6	2296.6	2305.6	2314.8
17.5°	2233.4	2221.4	2233.4	2221.4	2236.4	2230.4	2236.4	2245.5	2245.5	2254.5	2263.5
20°	2182.2	2170.2	2179.2	2170.2	2188.2	2179.2	2182.2	2194.2	2197.2	2206.4	2215.4
22.5°	2119.0	2110.0	2116.0	2107.0	2125.0	2119.0	2122.0	2134.1	2137.1	2143.1	2158.1
25°	2052.9	2034.8	2043.8	2037.8	2055.9	2046.8	2052.9	2064.9	2070.9	2079.9	2092.0
27.5°	1956.5	1947.5	1953.5	1953.5	1968.5	1959.5	1962.5	1974.5	1983.6	1992.6	2007.6
30°	1857.1	1842.1	1848.1	1851.1	1863.2	1857.1	1863.2	1875.2	1878.2	1890.2	1902.4
32.5°	1730.8	1724.8	1736.8	1730.8	1736.8	1736.8	1739.8	1748.8	1754.9	1760.9	1775.9
35°	1595.2	1583.2	1595.2	1589.2	1604.4	1595.2	1604.4	1613.4	1613.4	1625.4	1634.4
37.5°	1447.8	1432.8	1438.8	1438.8	1444.8	1441.8	1441.8	1456.9	1459.9	1468.9	1477.9
40°	1273.2	1267.2	1279.2	1276.2	1279.2	1279.2	1282.2	1291.2	1297.2	1300.4	1303.4
42.5°	1116.8	1119.8	1122.8	1122.8	1122.8	1122.8	1122.8	1134.8	1131.8	1140.8	1143.8
45°	987.2	975.2	981.2	978.2	987.2	978.2	987.2	996.2	990.2	999.4	993.2
47.5°	854.9	854.9	854.9	851.9	857.9	854.9	860.9	863.9	863.9	863.9	860.9
50°	749.5	740.5	743.5	743.5	746.5	743.5	749.5	752.5	752.5	746.5	734.5
52.5°	647.1	644.1	644.1	650.1	650.1	647.1	647.1	647.1	647.1	638.1	632.1
55°	562.9	556.9	559.9	559.9	559.9	559.9	562.9	559.9	559.9	550.9	541.8
57.5°	487.6	481.6	481.6	481.6	484.6	481.6	481.6	481.6	478.6	469.5	457.5
60°	415.4	412.4	415.4	415.4	418.4	415.4	415.4	415.4	409.4	400.4	388.2
62.5°	355.1	355.1	355.1	358.2	358.2	355.1	355.1	352.1	349.1	337.1	325.1
65°	304.0	301.0	304.0	304.0	307.0	307.0	304.0	301.0	298.0	286.0	273.9
67.5°	252.9	249.9	252.9	252.9	255.9	252.9	252.9	252.9	243.8	237.8	225.8
70°	204.6	201.6	201.6	201.6	204.6	198.6	201.6	201.6	195.6	186.6	174.6
72.5°	156.5	156.5	156.5	156.5	156.5	156.5	153.5	153.5	147.5	138.5	132.5
75°	114.4	114.4	117.4	117.4	114.4	114.4	114.4	111.4	108.4	102.4	96.4
77.5°	84.2	84.2	84.2	84.2	81.2	81.2	81.2	78.2	75.2	72.2	66.2
80°	60.2	60.2	60.2	57.2	60.2	57.2	57.2	57.2	51.1	48.1	45.1
82.5°	42.1	39.1	39.1	39.1	39.1	39.1	39.1	36.1	36.1	33.1	30.1
85°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	21.1	18.0	18.0
87.5°	12.0	15.0	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2
2.5°	2480.2	2480.2	2486.2	2477.2	2492.2	2483.2	2480.2	2495.2	2486.2	2483.2	2489.2
5°	2459.1	2462.1	2465.2	2459.1	2474.2	2465.2	2465.2	2480.2	2474.2	2471.2	2480.2
7.5°	2432.1	2435.1	2441.1	2438.1	2450.1	2444.1	2447.1	2462.1	2456.1	2456.1	2465.2
10°	2399.0	2405.0	2411.0	2411.0	2426.0	2420.0	2420.0	2438.1	2432.1	2435.1	2447.1
12.5°	2359.9	2368.9	2377.9	2380.9	2396.0	2386.9	2390.0	2411.0	2408.0	2411.0	2423.0
15°	2317.8	2329.8	2338.8	2338.8	2356.9	2347.8	2356.9	2377.9	2371.9	2383.9	2399.0
17.5°	2269.5	2281.6	2293.6	2296.6	2314.8	2308.6	2320.8	2341.8	2341.8	2347.8	2365.9
20°	2224.4	2239.5	2245.5	2254.5	2272.5	2269.5	2275.5	2299.6	2299.6	2308.6	2326.8
22.5°	2164.2	2179.2	2191.2	2200.2	2215.4	2215.4	2224.4	2245.5	2245.5	2251.5	2269.5
25°	2098.0	2116.0	2125.0	2134.1	2149.1	2146.1	2155.1	2173.2	2176.2	2182.2	2200.2
27.5°	2013.8	2028.8	2040.8	2046.8	2067.9	2055.9	2064.9	2085.9	2082.9	2089.0	2104.0
30°	1908.4	1923.4	1935.4	1935.4	1953.5	1953.5	1962.5	1971.5	1971.5	1977.6	1989.6
32.5°	1784.9	1803.0	1803.0	1812.0	1824.0	1812.0	1824.0	1836.1	1830.1	1839.1	1848.1
35°	1643.5	1652.5	1655.5	1655.5	1664.5	1661.5	1658.5	1667.5	1661.5	1676.6	1685.6
37.5°	1471.9	1483.9	1477.9	1483.9	1480.9	1471.9	1471.9	1487.0	1474.9	1477.9	1487.0
40°	1306.4	1306.4	1303.4	1288.2	1291.2	1282.2	1279.2	1282.2	1270.2	1267.2	1279.2
42.5°	1134.8	1131.8	1122.8	1101.6	1104.6	1089.6	1077.6	1077.6	1071.5	1068.5	1071.5
45°	981.2	972.2	957.1	933.1	927.1	915.0	891.0	885.0	875.9	875.9	878.9
47.5°	839.8	827.8	803.6	776.6	761.5	746.5	722.4	713.4	698.4	692.2	698.4
50°	722.4	701.4	671.2	632.1	617.0	599.0	574.9	559.9	544.8	538.8	535.8
52.5°	614.0	584.0	553.9	505.6	493.6	475.6	442.5	427.4	412.4	400.4	400.4
55°	520.8	493.6	451.5	406.4	388.2	370.2	337.1	316.0	301.0	295.0	289.0
57.5°	436.5	406.4	367.2	319.0	301.0	283.0	249.9	228.8	213.8	204.6	198.6
60°	367.2	334.1	295.0	252.9	231.8	213.8	180.6	159.5	144.5	135.5	129.4
62.5°	301.0	273.9	234.8	195.6	177.6	159.5	132.5	111.4	96.4	90.2	81.2
65°	252.9	225.8	189.6	156.5	141.5	123.4	99.4	81.2	69.2	60.2	54.1
67.5°	204.6	183.6	153.5	123.4	108.4	96.4	75.2	60.2	48.1	42.1	39.1
70°	162.5	141.5	117.4	93.2	84.2	72.2	57.2	42.1	36.1	30.1	27.1
72.5°	120.4	105.4	87.2	69.2	60.2	54.1	39.1	33.1	24.1	21.1	18.0
75°	87.2	75.2	63.2	48.1	42.1	39.1	30.1	21.1	18.0	15.0	12.0
77.5°	60.2	54.1	42.1	33.1	30.1	27.1	21.1	15.0	12.0	9.0	9.0
80°	39.1	33.1	27.1	21.1	21.1	18.0	12.0	9.0	9.0	6.0	6.0
82.5°	24.1	21.1	18.0	15.0	12.0	12.0	9.0	6.0	6.0	3.0	3.0
85°	15.0	12.0	9.0	9.0	6.0	6.0	6.0	3.0	3.0	3.0	3.0
87.5°	6.0	6.0	6.0	3.0	3.0	3.0	3.0	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°	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2
2.5°	2489.2	2489.2	2495.2	2486.2	2492.2	2492.2	2498.2	2486.2	2492.2	2495.2	2501.2
5°	2477.2	2480.2	2486.2	2483.2	2486.2	2486.2	2492.2	2477.2	2489.2	2489.2	2498.2
7.5°	2465.2	2465.2	2471.2	2468.2	2474.2	2477.2	2483.2	2471.2	2483.2	2483.2	2492.2
10°	2450.1	2450.1	2459.1	2456.1	2465.2	2468.2	2477.2	2465.2	2477.2	2480.2	2489.2
12.5°	2429.1	2432.1	2441.1	2441.1	2450.1	2456.1	2465.2	2459.1	2474.2	2477.2	2489.2
15°	2405.0	2411.0	2423.0	2420.0	2429.1	2438.1	2450.1	2441.1	2462.1	2468.2	2480.2
17.5°	2374.9	2380.9	2390.0	2390.0	2399.0	2405.0	2420.0	2414.0	2432.1	2435.1	2450.1
20°	2329.8	2338.8	2350.8	2347.8	2356.9	2362.9	2374.9	2368.9	2386.9	2393.0	2408.0
22.5°	2275.5	2281.6	2290.6	2290.6	2299.6	2305.6	2317.8	2308.6	2326.8	2329.8	2341.8
25°	2203.4	2209.4	2215.4	2218.4	2227.4	2230.4	2236.4	2230.4	2245.5	2248.5	2263.5
27.5°	2110.0	2113.0	2122.0	2122.0	2128.1	2131.1	2140.1	2128.1	2149.1	2149.1	2158.1
30°	1998.6	1995.6	2007.6	2001.6	2007.6	2007.6	2016.8	2010.6	2025.8	2019.8	2028.8
32.5°	1851.1	1857.1	1857.1	1851.1	1863.2	1860.1	1860.1	1854.1	1863.2	1866.2	1872.2
35°	1679.6	1688.6	1688.6	1691.6	1694.6	1685.6	1688.6	1670.5	1685.6	1688.6	1691.6
37.5°	1493.0	1483.9	1490.0	1480.9	1496.0	1477.9	1477.9	1465.9	1477.9	1477.9	1480.9
40°	1279.2	1276.2	1282.2	1276.2	1273.2	1270.2	1264.2	1255.1	1267.2	1261.2	1270.2
42.5°	1077.6	1074.6	1074.6	1068.5	1065.5	1065.5	1059.5	1053.5	1050.5	1050.5	1065.5
45°	869.9	875.9	869.9	866.9	872.9	866.9	869.9	857.9	863.9	857.9	863.9
47.5°	695.2	698.4	692.2	686.2	695.2	686.2	686.2	677.2	689.2	689.2	683.2
50°	538.8	535.8	529.8	535.8	532.8	532.8	532.8	523.8	529.8	520.8	526.8
52.5°	397.4	394.2	394.2	391.2	394.2	391.2	391.2	388.2	388.2	385.2	388.2
55°	289.0	286.0	279.9	279.9	279.9	283.0	279.9	276.9	276.9	273.9	276.9
57.5°	195.6	189.6	189.6	189.6	189.6	186.6	186.6	183.6	186.6	183.6	186.6
60°	126.4	126.4	120.4	120.4	120.4	120.4	120.4	117.4	120.4	120.4	120.4
62.5°	78.2	78.2	75.2	72.2	75.2	72.2	72.2	72.2	75.2	72.2	75.2
65°	51.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1
67.5°	36.1	33.1	33.1	33.1	33.1	33.1	33.1	30.1	33.1	33.1	33.1
70°	24.1	24.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
72.5°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
75°	12.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
77.5°	9.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
80°	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	3.0	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	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
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: P252292

CATALOG NUMBER: LE\_6B40D010 EC6B30509035 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2	2492.2
2.5°	2492.2	2495.2	2489.2	2492.2	2486.2	2492.2	2495.2	2501.2
5°	2486.2	2489.2	2483.2	2489.2	2483.2	2489.2	2492.2	2498.2
7.5°	2480.2	2486.2	2480.2	2486.2	2480.2	2486.2	2489.2	2495.2
10°	2480.2	2489.2	2483.2	2492.2	2483.2	2489.2	2495.2	2498.2
12.5°	2480.2	2489.2	2486.2	2492.2	2489.2	2495.2	2501.2	2507.4
15°	2474.2	2483.2	2477.2	2486.2	2483.2	2486.2	2498.2	2498.2
17.5°	2441.1	2450.1	2450.1	2456.1	2456.1	2465.2	2471.2	2477.2
20°	2399.0	2408.0	2405.0	2414.0	2414.0	2423.0	2429.1	2435.1
22.5°	2335.8	2347.8	2344.8	2353.9	2350.8	2356.9	2368.9	2365.9
25°	2254.5	2269.5	2266.5	2272.5	2269.5	2269.5	2275.5	2278.6
27.5°	2155.1	2164.2	2161.1	2167.2	2161.1	2167.2	2173.2	2176.2
30°	2025.8	2031.8	2028.8	2031.8	2028.8	2034.8	2037.8	2043.8
32.5°	1869.2	1878.2	1869.2	1875.2	1872.2	1872.2	1884.2	1878.2
35°	1682.6	1685.6	1688.6	1688.6	1682.6	1685.6	1691.6	1691.6
37.5°	1474.9	1490.0	1471.9	1480.9	1477.9	1477.9	1477.9	1487.0
40°	1258.1	1261.2	1255.1	1255.1	1255.1	1252.1	1264.2	1261.2
42.5°	1053.5	1056.5	1053.5	1044.5	1047.5	1047.5	1056.5	1044.5
45°	854.9	860.9	857.9	857.9	851.9	851.9	854.9	848.9
47.5°	677.2	683.2	674.2	677.2	671.2	677.2	674.2	680.2
50°	514.8	520.8	517.8	520.8	520.8	514.8	523.8	511.8
52.5°	385.2	388.2	385.2	382.2	379.2	379.2	385.2	382.2
55°	273.9	270.9	270.9	270.9	273.9	273.9	270.9	267.9
57.5°	183.6	183.6	180.6	180.6	183.6	177.6	180.6	177.6
60°	117.4	117.4	117.4	117.4	114.4	117.4	117.4	117.4
62.5°	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2
65°	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1
67.5°	30.1	33.1	33.1	33.1	30.1	30.1	30.1	30.1
70°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
72.5°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
75°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
77.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.0	3.0	3.0	3.0	3.0	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)