

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: P252290

Luminaire Tested: **LE\_6B40D010 EC6B30509027 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252290  
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 EC6B30509027 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3965.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 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

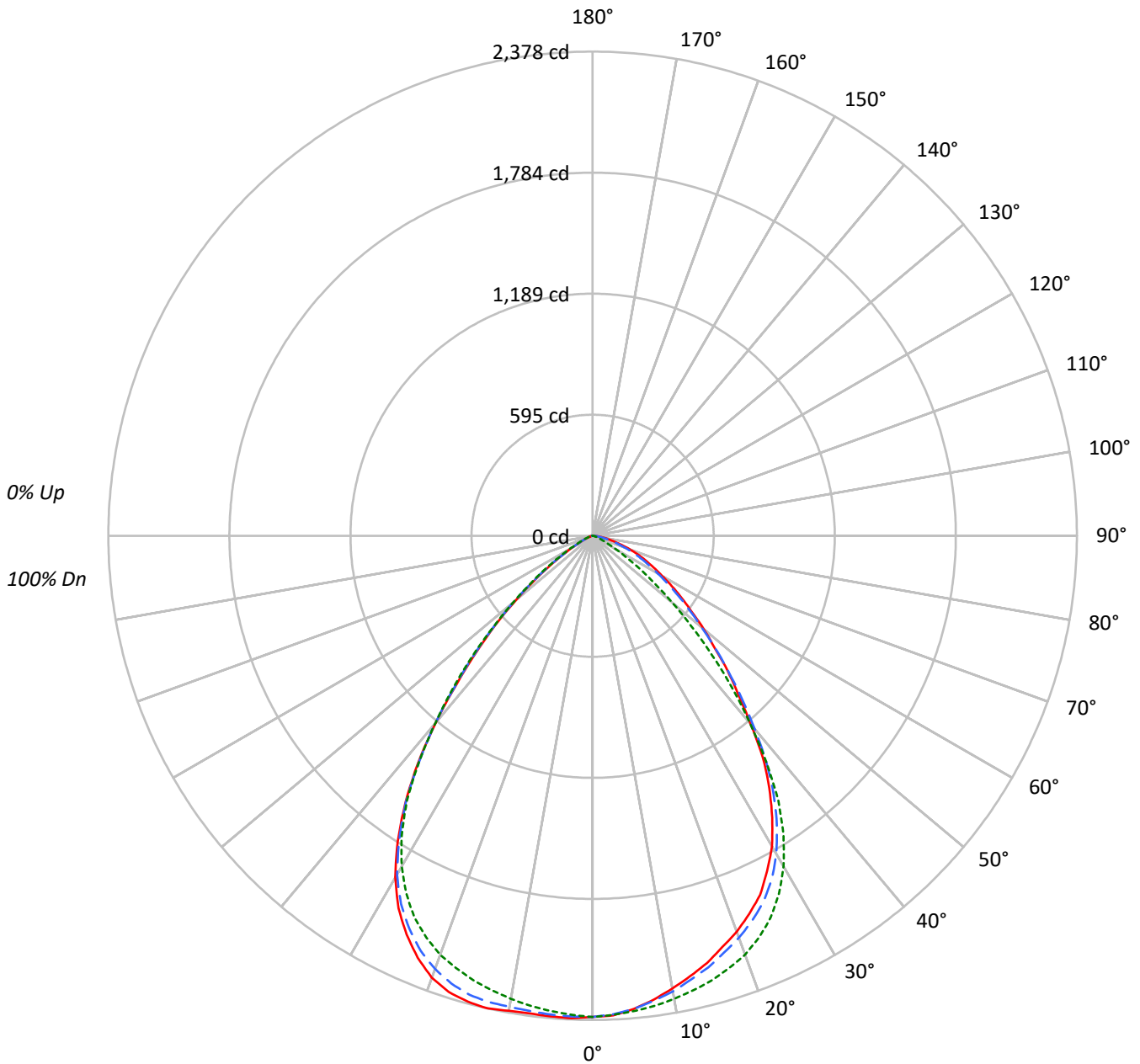
Input Watts (W): 43  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	154190	154190	154190
5°	152722	153469	155152
10°	149573	152971	156946
15°	146708	152686	160014
20°	143674	151991	160315
25°	140126	148966	155545
30°	132670	141265	146004
35°	120486	126626	127757
40°	102829	102335	101858
45°	86378	76635	74263
50°	72144	51855	49246
55°	60716	31825	28891
60°	51397	16767	14536
65°	44490	8815	7039
70°	37025	5436	3815
75°	27350	3579	2168
80°	21453	2179	1090
85°	17142	2171	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.7	5.6
10°-20°	637.8	16.1
20°-30°	941.7	23.8
30°-40°	970.5	24.5
40°-50°	670.3	16.9
50°-60°	330.4	8.3
60°-70°	133.9	3.4
70°-80°	47.7	1.2
80°-90°	9.9	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°	1802.2	45.5
0°-40°	2772.8	69.9
0°-60°	3773.5	95.2
0°-90°	3965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3965.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2363	2363	2363	2363	2363	
5°	2332	2332	2343	2360	2369	220
15°	2172	2195	2261	2335	2369	612
25°	1947	1984	2069	2129	2161	890
35°	1513	1550	1590	1598	1604	937
45°	936	942	831	819	805	724
55°	534	514	280	263	254	482
65°	288	260	57	46	46	286
75°	108	91	14	9	9	122
85°	23	17	3	0	0	28
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°	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4
2.5°	2357.6	2349.1	2354.9	2343.4	2357.6	2343.4	2346.2	2349.1	2346.2	2349.1	2352.0
5°	2332.0	2323.4	2332.0	2317.8	2332.0	2323.4	2323.4	2326.2	2326.2	2329.1	2332.0
7.5°	2297.8	2289.1	2297.8	2283.5	2300.6	2292.0	2292.0	2297.8	2294.9	2297.8	2303.5
10°	2257.8	2246.4	2254.9	2246.4	2263.5	2252.1	2257.8	2257.8	2257.8	2266.4	2272.0
12.5°	2215.0	2203.5	2215.0	2200.6	2217.9	2209.2	2212.1	2220.6	2223.5	2229.2	2232.1
15°	2172.1	2157.9	2163.6	2155.0	2172.1	2163.6	2166.4	2177.9	2177.9	2186.4	2195.0
17.5°	2117.9	2106.5	2117.9	2106.5	2120.8	2115.0	2120.8	2129.4	2129.4	2137.9	2146.5
20°	2069.4	2058.0	2066.5	2058.0	2075.1	2066.5	2069.4	2080.8	2083.6	2092.2	2100.8
22.5°	2009.5	2000.9	2006.6	1998.0	2015.1	2009.5	2012.2	2023.8	2026.6	2032.2	2046.5
25°	1946.6	1929.5	1938.1	1932.4	1949.5	1941.0	1946.6	1958.1	1963.8	1972.4	1983.8
27.5°	1855.4	1846.8	1852.5	1852.5	1866.8	1858.1	1861.0	1872.5	1881.0	1889.6	1903.9
30°	1761.1	1746.9	1752.5	1755.4	1766.9	1761.1	1766.9	1778.2	1781.1	1792.5	1803.9
32.5°	1641.2	1635.5	1647.0	1641.2	1647.0	1647.0	1649.8	1658.4	1664.1	1669.8	1684.0
35°	1512.8	1501.4	1512.8	1507.1	1521.4	1512.8	1521.4	1529.9	1529.9	1541.4	1549.9
37.5°	1372.9	1358.6	1364.4	1364.4	1370.1	1367.2	1367.2	1381.5	1384.4	1392.9	1401.5
40°	1207.4	1201.6	1213.1	1210.2	1213.1	1213.1	1216.0	1224.5	1230.2	1233.1	1235.9
42.5°	1059.0	1061.8	1064.6	1064.6	1064.6	1064.6	1064.6	1076.1	1073.2	1081.8	1084.6
45°	936.2	924.8	930.5	927.6	936.2	927.6	936.2	944.8	939.1	947.6	941.9
47.5°	810.6	810.6	810.6	807.8	813.5	810.6	816.4	819.2	819.2	819.2	816.4
50°	710.8	702.1	705.0	705.0	707.9	705.0	710.8	713.6	713.6	707.9	696.5
52.5°	613.6	610.9	610.9	616.5	616.5	613.6	613.6	613.6	613.6	605.1	599.4
55°	533.8	528.0	530.9	530.9	530.9	530.9	533.8	530.9	530.9	522.4	513.8
57.5°	462.4	456.8	456.8	456.8	459.5	456.8	456.8	456.8	453.9	445.2	433.9
60°	393.9	391.0	393.9	393.9	396.8	393.9	393.9	393.9	388.2	379.6	368.2
62.5°	336.8	336.8	336.8	339.6	339.6	336.8	336.8	334.0	331.1	319.6	308.2
65°	288.2	285.4	288.2	288.2	291.1	291.1	288.2	285.4	282.6	271.1	259.8
67.5°	239.8	236.9	239.8	239.8	242.6	239.8	239.8	239.8	231.2	225.5	214.1
70°	194.1	191.2	191.2	191.2	194.1	188.4	191.2	191.2	185.5	177.0	165.5
72.5°	148.4	148.4	148.4	148.4	148.4	148.4	145.6	145.6	139.9	131.2	125.6
75°	108.5	108.5	111.4	111.4	108.5	108.5	108.5	105.6	102.8	97.0	91.4
77.5°	79.9	79.9	79.9	79.9	77.1	77.1	77.1	74.2	71.4	68.5	62.8
80°	57.1	57.1	57.1	54.2	57.1	54.2	54.2	54.2	48.5	45.6	42.9
82.5°	40.0	37.1	37.1	37.1	37.1	37.1	37.1	34.2	34.2	31.4	28.5
85°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	20.0	17.1	17.1
87.5°	11.4	14.2	14.2	14.2	14.2	14.2	14.2	11.4	11.4	11.4	8.6
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°	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4
2.5°	2352.0	2352.0	2357.6	2349.1	2363.4	2354.9	2352.0	2366.2	2357.6	2354.9	2360.5
5°	2332.0	2334.9	2337.8	2332.0	2346.2	2337.8	2337.8	2352.0	2346.2	2343.4	2352.0
7.5°	2306.2	2309.1	2314.9	2312.0	2323.4	2317.8	2320.6	2334.9	2329.1	2329.1	2337.8
10°	2274.9	2280.6	2286.4	2286.4	2300.6	2294.9	2294.9	2312.0	2306.2	2309.1	2320.6
12.5°	2237.8	2246.4	2254.9	2257.8	2272.0	2263.5	2266.4	2286.4	2283.5	2286.4	2297.8
15°	2197.9	2209.2	2217.9	2217.9	2235.0	2226.4	2235.0	2254.9	2249.2	2260.6	2274.9
17.5°	2152.1	2163.6	2175.0	2177.9	2195.0	2189.2	2200.6	2220.6	2220.6	2226.4	2243.5
20°	2109.4	2123.6	2129.4	2137.9	2155.0	2152.1	2157.9	2180.8	2180.8	2189.2	2206.4
22.5°	2052.2	2066.5	2078.0	2086.5	2100.8	2100.8	2109.4	2129.4	2129.4	2135.0	2152.1
25°	1989.5	2006.6	2015.1	2023.8	2038.0	2035.1	2043.8	2060.9	2063.6	2069.4	2086.5
27.5°	1909.5	1923.9	1935.2	1941.0	1960.9	1949.5	1958.1	1978.0	1975.2	1980.9	1995.1
30°	1809.6	1823.9	1835.4	1835.4	1852.5	1852.5	1861.0	1869.6	1869.6	1875.2	1886.8
32.5°	1692.6	1709.8	1709.8	1718.2	1729.8	1718.2	1729.8	1741.1	1735.4	1744.0	1752.5
35°	1558.5	1567.0	1569.9	1569.9	1578.5	1575.6	1572.8	1581.2	1575.6	1589.9	1598.4
37.5°	1395.8	1407.1	1401.5	1407.1	1404.4	1395.8	1395.8	1410.0	1398.6	1401.5	1410.0
40°	1238.8	1238.8	1235.9	1221.6	1224.5	1216.0	1213.1	1216.0	1204.5	1201.6	1213.1
42.5°	1076.1	1073.2	1064.6	1044.6	1047.5	1033.2	1021.9	1021.9	1016.1	1013.2	1016.1
45°	930.5	922.0	907.6	884.9	879.1	867.8	844.9	839.1	830.6	830.6	833.5
47.5°	796.4	785.0	762.1	736.4	722.1	707.9	685.0	676.5	662.2	656.5	662.2
50°	685.0	665.0	636.5	599.4	585.1	568.0	545.1	530.9	516.6	510.9	508.1
52.5°	582.2	553.8	525.2	479.5	468.1	451.0	419.6	405.4	391.0	379.6	379.6
55°	493.8	468.1	428.1	385.4	368.2	351.1	319.6	299.8	285.4	279.8	274.0
57.5°	413.9	385.4	348.2	302.5	285.4	268.2	236.9	216.9	202.6	194.1	188.4
60°	348.2	316.9	279.8	239.8	219.8	202.6	171.2	151.2	137.0	128.5	122.8
62.5°	285.4	259.8	222.6	185.5	168.4	151.2	125.6	105.6	91.4	85.6	77.1
65°	239.8	214.1	179.9	148.4	134.1	117.0	94.2	77.1	65.6	57.1	51.4
67.5°	194.1	174.1	145.6	117.0	102.8	91.4	71.4	57.1	45.6	40.0	37.1
70°	154.1	134.1	111.4	88.5	79.9	68.5	54.2	40.0	34.2	28.5	25.8
72.5°	114.1	99.9	82.8	65.6	57.1	51.4	37.1	31.4	22.9	20.0	17.1
75°	82.8	71.4	60.0	45.6	40.0	37.1	28.5	20.0	17.1	14.2	11.4
77.5°	57.1	51.4	40.0	31.4	28.5	25.8	20.0	14.2	11.4	8.6	8.6
80°	37.1	31.4	25.8	20.0	20.0	17.1	11.4	8.6	8.6	5.8	5.8
82.5°	22.9	20.0	17.1	14.2	11.4	11.4	8.6	5.8	5.8	2.9	2.9
85°	14.2	11.4	8.6	8.6	5.8	5.8	5.8	2.9	2.9	2.9	2.9
87.5°	5.8	5.8	5.8	2.9	2.9	2.9	2.9	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°	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4
2.5°	2360.5	2360.5	2366.2	2357.6	2363.4	2363.4	2369.1	2357.6	2363.4	2366.2	2372.0
5°	2349.1	2352.0	2357.6	2354.9	2357.6	2357.6	2363.4	2349.1	2360.5	2360.5	2369.1
7.5°	2337.8	2337.8	2343.4	2340.5	2346.2	2349.1	2354.9	2343.4	2354.9	2354.9	2363.4
10°	2323.4	2323.4	2332.0	2329.1	2337.8	2340.5	2349.1	2337.8	2349.1	2352.0	2360.5
12.5°	2303.5	2306.2	2314.9	2314.9	2323.4	2329.1	2337.8	2332.0	2346.2	2349.1	2360.5
15°	2280.6	2286.4	2297.8	2294.9	2303.5	2312.0	2323.4	2314.9	2334.9	2340.5	2352.0
17.5°	2252.1	2257.8	2266.4	2266.4	2274.9	2280.6	2294.9	2289.1	2306.2	2309.1	2323.4
20°	2209.2	2217.9	2229.2	2226.4	2235.0	2240.6	2252.1	2246.4	2263.5	2269.2	2283.5
22.5°	2157.9	2163.6	2172.1	2172.1	2180.8	2186.4	2197.9	2189.2	2206.4	2209.2	2220.6
25°	2089.4	2095.1	2100.8	2103.6	2112.2	2115.0	2120.8	2115.0	2129.4	2132.1	2146.5
27.5°	2000.9	2003.8	2012.2	2012.2	2018.0	2020.9	2029.4	2018.0	2038.0	2038.0	2046.5
30°	1895.2	1892.4	1903.9	1898.1	1903.9	1903.9	1912.4	1906.8	1921.0	1915.2	1923.9
32.5°	1755.4	1761.1	1761.1	1755.4	1766.9	1764.0	1764.0	1758.2	1766.9	1769.6	1775.4
35°	1592.8	1601.2	1601.2	1604.1	1607.0	1598.4	1601.2	1584.1	1598.4	1601.2	1604.1
37.5°	1415.8	1407.1	1412.9	1404.4	1418.6	1401.5	1401.5	1390.0	1401.5	1401.5	1404.4
40°	1213.1	1210.2	1216.0	1210.2	1207.4	1204.5	1198.9	1190.2	1201.6	1196.0	1204.5
42.5°	1021.9	1019.0	1019.0	1013.2	1010.4	1010.4	1004.8	999.0	996.1	996.1	1010.4
45°	824.9	830.6	824.9	822.0	827.8	822.0	824.9	813.5	819.2	813.5	819.2
47.5°	659.4	662.2	656.5	650.8	659.4	650.8	650.8	642.2	653.6	653.6	647.9
50°	510.9	508.1	502.4	508.1	505.2	505.2	505.2	496.6	502.4	493.8	499.5
52.5°	376.8	373.9	373.9	371.1	373.9	371.1	371.1	368.2	368.2	365.4	368.2
55°	274.0	271.1	265.5	265.5	265.5	268.2	265.5	262.6	262.6	259.8	262.6
57.5°	185.5	179.9	179.9	179.9	179.9	177.0	177.0	174.1	177.0	174.1	177.0
60°	119.9	119.9	114.1	114.1	114.1	114.1	114.1	111.4	114.1	114.1	114.1
62.5°	74.2	74.2	71.4	68.5	71.4	68.5	68.5	68.5	71.4	68.5	71.4
65°	48.5	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
67.5°	34.2	31.4	31.4	31.4	31.4	31.4	31.4	28.5	31.4	31.4	31.4
70°	22.9	22.9	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
72.5°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
75°	11.4	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
77.5°	8.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	5.8	5.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	2.9	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	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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: P252290

CATALOG NUMBER: LE\_6B40D010 EC6B30509027 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4	2363.4
2.5°	2363.4	2366.2	2360.5	2363.4	2357.6	2363.4	2366.2	2372.0
5°	2357.6	2360.5	2354.9	2360.5	2354.9	2360.5	2363.4	2369.1
7.5°	2352.0	2357.6	2352.0	2357.6	2352.0	2357.6	2360.5	2366.2
10°	2352.0	2360.5	2354.9	2363.4	2354.9	2360.5	2366.2	2369.1
12.5°	2352.0	2360.5	2357.6	2363.4	2360.5	2366.2	2372.0	2377.6
15°	2346.2	2354.9	2349.1	2357.6	2354.9	2357.6	2369.1	2369.1
17.5°	2314.9	2323.4	2323.4	2329.1	2329.1	2337.8	2343.4	2349.1
20°	2274.9	2283.5	2280.6	2289.1	2289.1	2297.8	2303.5	2309.1
22.5°	2215.0	2226.4	2223.5	2232.1	2229.2	2235.0	2246.4	2243.5
25°	2137.9	2152.1	2149.2	2155.0	2152.1	2152.1	2157.9	2160.8
27.5°	2043.8	2052.2	2049.4	2055.1	2049.4	2055.1	2060.9	2063.6
30°	1921.0	1926.6	1923.9	1926.6	1923.9	1929.5	1932.4	1938.1
32.5°	1772.5	1781.1	1772.5	1778.2	1775.4	1775.4	1786.8	1781.1
35°	1595.6	1598.4	1601.2	1601.2	1595.6	1598.4	1604.1	1604.1
37.5°	1398.6	1412.9	1395.8	1404.4	1401.5	1401.5	1401.5	1410.0
40°	1193.1	1196.0	1190.2	1190.2	1190.2	1187.4	1198.9	1196.0
42.5°	999.0	1001.9	999.0	990.5	993.2	993.2	1001.9	990.5
45°	810.6	816.4	813.5	813.5	807.8	807.8	810.6	804.9
47.5°	642.2	647.9	639.4	642.2	636.5	642.2	639.4	645.1
50°	488.1	493.8	491.0	493.8	493.8	488.1	496.6	485.2
52.5°	365.4	368.2	365.4	362.5	359.6	359.6	365.4	362.5
55°	259.8	256.9	256.9	256.9	259.8	259.8	256.9	254.0
57.5°	174.1	174.1	171.2	171.2	174.1	168.4	171.2	168.4
60°	111.4	111.4	111.4	111.4	108.5	111.4	111.4	111.4
62.5°	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
65°	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
67.5°	28.5	31.4	31.4	31.4	28.5	28.5	28.5	28.5
70°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
72.5°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
75°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
77.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.9	2.9	2.9	2.9	2.9	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)