

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: P252397

Luminaire Tested: **LE\_6B40D010 EC6B30509040 6LBLWW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252397  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-5)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B40D010 EC6B30509040 6LBLWW1LI  
Description: PORTFOLIO 6 INCH LENS 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: 4097.5 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.03 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

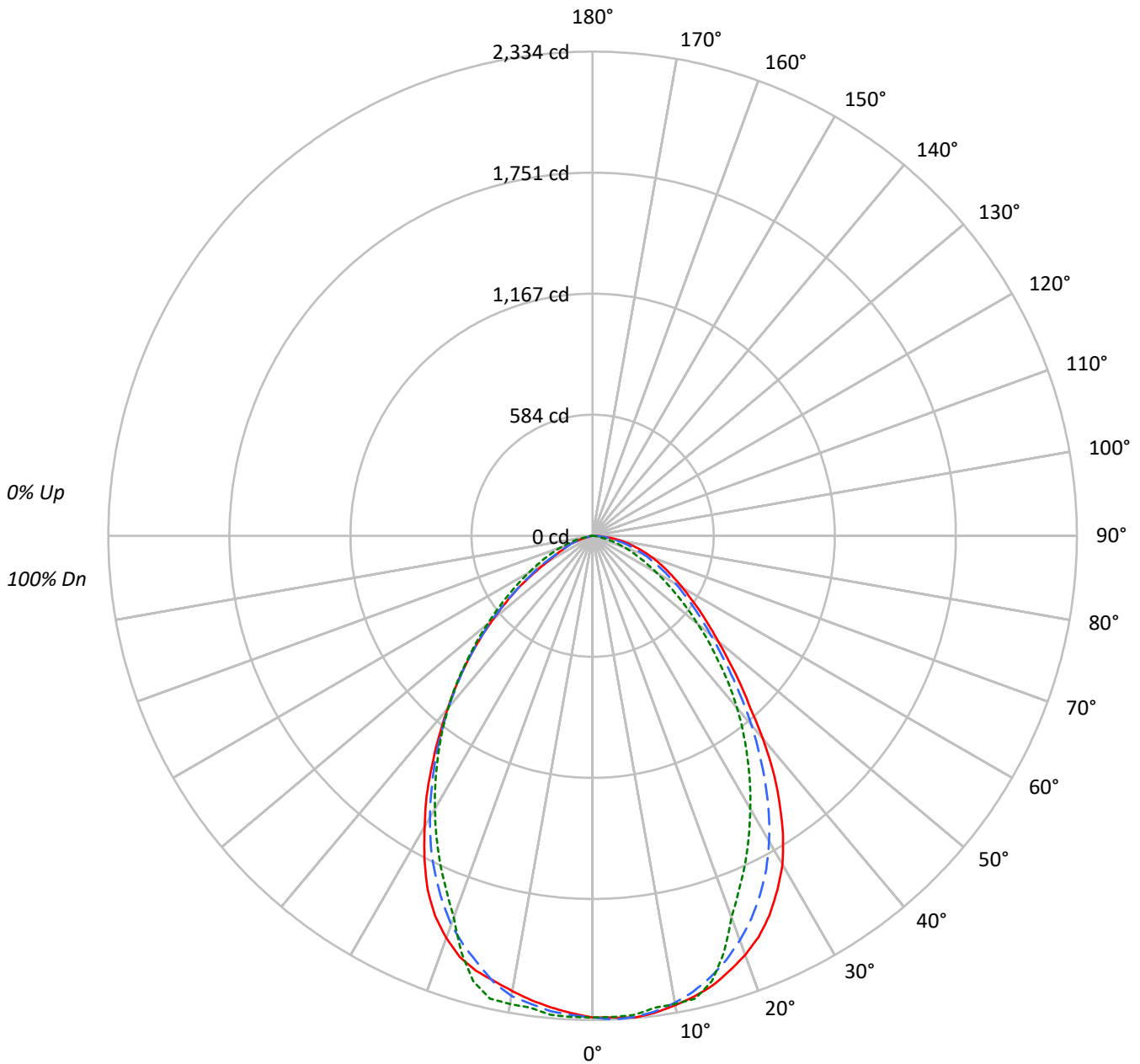
Input Watts (W): 43  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	80	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54																			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48																			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44																			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	42	51	45	41	40																			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36																			
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	151463	151463	151463
5°	152644	151845	149481
10°	152203	151805	147612
15°	151510	150085	146627
20°	149262	135863	143188
25°	145201	125240	135440
30°	137875	114477	121972
35°	125113	103498	107344
40°	108620	92192	92447
45°	92633	79292	78443
50°	80182	67028	63344
55°	71670	55905	49035
60°	65306	46425	33038
65°	60977	38161	24669
70°	58084	31073	20696
75°	54724	22056	6831
80°	52148	11309	2254
85°	42817	6737	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.2	5.4
10°-20°	613.2	15.0
20°-30°	846.4	20.7
30°-40°	861.3	21.0
40°-50°	692.2	16.9
50°-60°	460.3	11.2
60°-70°	262.3	6.4
70°-80°	117.8	2.9
80°-90°	24.8	0.6
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°	1678.8	41.0
0°-40°	2540.1	62.0
0°-60°	3692.6	90.1
0°-90°	4097.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4097.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2322	2322	2322	2322	2322	
5°	2331	2328	2319	2301	2282	221
15°	2243	2201	2222	2135	2171	631
25°	2017	1909	1740	1797	1882	924
35°	1571	1450	1300	1324	1348	976
45°	1004	944	859	850	850	779
55°	630	588	492	437	431	566
65°	395	353	247	160	160	393
75°	217	181	88	36	27	232
85°	57	39	9	3	0	68
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°	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6
2.5°	2324.8	2336.8	2333.8	2330.8	2333.8	2330.8	2324.8	2324.8	2318.6	2318.6	2333.8
5°	2330.8	2336.8	2333.8	2330.8	2330.8	2333.8	2321.6	2321.6	2315.6	2312.6	2327.8
7.5°	2318.6	2327.8	2321.6	2321.6	2318.6	2321.6	2309.6	2309.6	2300.6	2297.5	2312.6
10°	2297.5	2309.6	2303.6	2303.6	2303.6	2297.5	2291.5	2288.5	2279.5	2276.5	2285.5
12.5°	2273.4	2282.5	2279.5	2273.4	2273.4	2273.4	2261.4	2258.4	2246.2	2240.2	2249.4
15°	2243.2	2249.4	2246.2	2243.2	2237.2	2237.2	2225.2	2219.1	2207.1	2195.0	2201.1
17.5°	2198.0	2207.1	2201.1	2198.0	2189.0	2189.0	2177.0	2170.9	2152.9	2140.8	2143.8
20°	2149.9	2152.9	2149.9	2143.8	2134.8	2131.8	2119.6	2107.6	2092.5	2077.5	2074.4
22.5°	2092.5	2095.5	2086.5	2080.5	2071.4	2068.4	2053.4	2044.2	2020.1	2002.1	1999.0
25°	2017.1	2020.1	2020.1	2005.1	1999.0	1993.0	1978.0	1962.9	1941.8	1917.6	1908.6
27.5°	1926.8	1935.8	1929.8	1914.6	1902.6	1899.5	1884.5	1872.4	1845.2	1824.1	1812.1
30°	1830.2	1827.2	1824.1	1815.1	1797.0	1794.0	1779.0	1763.9	1742.8	1715.6	1700.5
32.5°	1706.6	1706.6	1703.6	1694.5	1676.4	1670.4	1658.4	1640.2	1616.1	1595.0	1580.0
35°	1570.9	1573.9	1570.9	1552.8	1540.8	1534.8	1528.8	1507.6	1486.5	1462.4	1450.2
37.5°	1429.2	1420.1	1423.1	1408.1	1393.0	1399.0	1381.0	1371.9	1347.8	1329.8	1317.6
40°	1275.4	1281.5	1269.4	1263.4	1254.2	1245.2	1245.2	1230.2	1218.1	1197.0	1191.0
42.5°	1124.6	1133.8	1130.6	1124.6	1112.6	1115.6	1100.5	1094.5	1079.4	1070.4	1061.4
45°	1004.0	1004.0	1004.0	998.0	995.0	989.0	979.9	970.9	961.9	949.8	943.8
47.5°	886.5	886.5	889.5	883.5	877.4	874.4	868.4	868.4	853.2	841.2	835.2
50°	790.0	790.0	790.0	784.0	777.9	777.9	771.9	765.9	756.8	747.8	741.8
52.5°	702.5	702.5	702.5	696.5	693.5	690.5	687.5	684.5	672.4	666.4	660.4
55°	630.1	627.1	627.1	624.1	618.1	618.1	615.1	609.1	600.0	591.0	588.0
57.5°	557.8	560.9	557.8	557.8	551.8	551.8	545.8	542.8	533.6	527.6	521.6
60°	500.5	500.5	500.5	497.5	491.5	494.5	488.5	485.5	476.4	467.4	461.4
62.5°	443.2	446.2	446.2	443.2	437.2	437.2	434.1	431.1	422.1	413.1	404.0
65°	395.0	395.0	395.0	392.0	389.0	389.0	386.0	382.9	373.9	361.9	352.8
67.5°	349.8	346.8	346.8	346.8	343.8	340.8	337.8	334.6	325.6	316.6	304.5
70°	304.5	304.5	304.5	301.5	295.5	298.5	295.5	292.5	283.4	274.4	265.4
72.5°	262.4	262.4	259.2	256.2	256.2	253.2	253.2	250.2	241.2	229.1	220.1
75°	217.1	217.1	217.1	217.1	211.0	214.1	208.0	205.0	199.0	190.0	180.9
77.5°	177.9	177.9	177.9	174.9	171.9	171.9	168.9	165.9	156.8	150.8	138.8
80°	138.8	138.8	138.8	138.8	135.6	132.6	129.6	126.6	120.6	111.5	102.5
82.5°	102.5	102.5	99.5	99.5	99.5	96.5	93.5	90.5	84.4	78.4	72.4
85°	57.2	60.2	60.2	54.2	57.2	54.2	54.2	48.2	48.2	42.2	39.2
87.5°	21.1	18.1	18.1	18.1	18.1	18.1	18.1	15.1	15.1	15.1	12.0
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°	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6
2.5°	2321.6	2318.6	2330.8	2330.8	2312.6	2321.6	2324.8	2318.6	2318.6	2321.6	2312.6
5°	2315.6	2309.6	2321.6	2324.8	2306.6	2315.6	2318.6	2312.6	2315.6	2318.6	2306.6
7.5°	2294.5	2294.5	2303.6	2306.6	2288.5	2297.5	2297.5	2291.5	2294.5	2294.5	2285.5
10°	2273.4	2264.4	2273.4	2273.4	2258.4	2261.4	2267.4	2264.4	2276.5	2291.5	2291.5
12.5°	2234.2	2225.2	2240.2	2240.2	2231.2	2243.2	2258.4	2267.4	2279.5	2285.5	2267.4
15°	2186.0	2189.0	2216.1	2237.2	2228.2	2246.2	2261.4	2255.4	2240.2	2222.1	2195.0
17.5°	2122.6	2113.6	2137.8	2149.9	2137.8	2143.8	2155.9	2143.8	2119.6	2104.6	2068.4
20°	2050.4	2026.2	2026.2	2020.1	1999.0	1999.0	1996.0	1974.9	1965.9	1956.9	1941.8
22.5°	1968.9	1941.8	1932.8	1914.6	1896.5	1893.5	1884.5	1863.4	1851.2	1845.2	1827.2
25°	1875.4	1851.2	1836.2	1818.1	1791.0	1785.0	1775.9	1754.9	1748.8	1739.8	1724.6
27.5°	1779.0	1748.8	1727.8	1709.6	1685.5	1682.5	1664.4	1649.2	1637.2	1631.2	1619.1
30°	1667.4	1634.2	1619.1	1595.0	1576.9	1570.9	1555.9	1534.8	1525.6	1519.6	1510.6
32.5°	1543.8	1516.6	1501.5	1480.5	1456.4	1459.4	1441.2	1423.1	1417.1	1411.1	1402.0
35°	1423.1	1396.0	1377.9	1359.9	1344.8	1338.8	1326.6	1311.6	1302.5	1299.5	1293.5
37.5°	1290.5	1269.4	1254.2	1236.2	1224.1	1218.1	1212.1	1197.0	1191.0	1191.0	1178.9
40°	1160.9	1142.8	1130.6	1121.6	1106.6	1103.5	1097.5	1088.5	1085.5	1082.5	1073.4
42.5°	1043.2	1019.1	1010.1	1004.0	995.0	989.0	986.0	979.9	976.9	973.9	964.9
45°	931.6	910.6	901.5	895.5	886.5	883.5	880.4	871.4	865.4	859.4	856.2
47.5°	823.1	808.1	805.0	790.0	784.0	777.9	771.9	765.9	762.9	759.9	747.8
50°	729.6	720.6	705.5	696.5	690.5	687.5	675.4	666.4	663.4	660.4	651.2
52.5°	645.2	633.1	624.1	609.1	606.0	600.0	594.0	581.9	575.9	572.9	563.9
55°	569.9	560.9	548.8	536.8	527.6	524.6	515.6	503.5	497.5	491.5	485.5
57.5°	506.5	491.5	479.4	467.4	461.4	452.2	443.2	437.2	428.1	419.1	410.1
60°	446.2	434.1	419.1	407.0	401.0	395.0	382.9	373.9	364.9	355.8	346.8
62.5°	389.0	376.9	361.9	349.8	343.8	337.8	325.6	316.6	307.5	298.5	286.5
65°	337.8	325.6	313.6	301.5	295.5	289.5	277.4	265.4	256.2	247.2	235.1
67.5°	295.5	280.4	268.4	256.2	250.2	244.2	232.1	223.1	211.0	202.0	190.0
70°	250.2	238.2	229.1	217.1	211.0	205.0	193.0	180.9	171.9	162.9	150.8
72.5°	211.0	196.0	187.0	174.9	168.9	165.9	153.8	144.8	135.6	123.6	114.6
75°	168.9	156.8	144.8	135.6	129.6	126.6	114.6	105.5	96.5	87.5	78.4
77.5°	129.6	120.6	108.5	99.5	93.5	90.5	78.4	69.4	60.2	54.2	45.2
80°	96.5	84.4	78.4	69.4	66.4	60.2	54.2	45.2	39.2	30.1	24.1
82.5°	66.4	57.2	51.2	45.2	42.2	39.2	33.1	27.1	21.1	18.1	15.1
85°	36.1	30.1	27.1	24.1	21.1	21.1	18.1	15.1	12.0	9.0	6.0
87.5°	12.0	9.0	9.0	9.0	9.0	6.0	6.0	6.0	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6
2.5°	2318.6	2318.6	2318.6	2315.6	2315.6	2315.6	2312.6	2324.8	2312.6	2309.6	2318.6
5°	2315.6	2309.6	2309.6	2309.6	2309.6	2306.6	2303.6	2309.6	2300.6	2297.5	2297.5
7.5°	2297.5	2294.5	2294.5	2291.5	2288.5	2285.5	2282.5	2285.5	2276.5	2273.4	2273.4
10°	2300.6	2294.5	2294.5	2285.5	2279.5	2270.4	2261.4	2264.4	2252.4	2243.2	2243.2
12.5°	2264.4	2249.4	2240.2	2231.2	2225.2	2222.1	2210.1	2216.1	2204.1	2201.1	2201.1
15°	2183.0	2164.9	2149.9	2143.8	2143.8	2137.8	2128.8	2140.8	2134.8	2137.8	2152.9
17.5°	2056.4	2047.2	2038.2	2035.2	2038.2	2044.2	2050.4	2068.4	2068.4	2077.5	2092.5
20°	1944.8	1938.8	1944.8	1944.8	1947.8	1959.9	1971.9	1987.0	1993.0	2002.1	2023.1
22.5°	1836.2	1836.2	1842.2	1851.2	1848.2	1869.4	1872.4	1899.5	1899.5	1917.6	1935.8
25°	1730.8	1730.8	1736.8	1739.8	1745.8	1757.9	1769.9	1791.0	1797.0	1815.1	1830.2
27.5°	1628.2	1625.1	1625.1	1628.2	1634.2	1649.2	1655.4	1679.5	1688.5	1700.5	1715.6
30°	1513.6	1510.6	1516.6	1522.6	1519.6	1534.8	1543.8	1561.9	1567.9	1580.0	1592.0
32.5°	1405.1	1405.1	1405.1	1411.1	1411.1	1423.1	1423.1	1444.2	1444.2	1453.2	1465.4
35°	1293.5	1293.5	1296.5	1299.5	1302.5	1305.6	1308.6	1320.6	1323.6	1326.6	1332.8
37.5°	1188.0	1185.0	1188.0	1188.0	1182.0	1194.0	1194.0	1206.1	1197.0	1206.1	1209.1
40°	1079.4	1079.4	1076.4	1076.4	1076.4	1082.5	1076.4	1085.5	1079.4	1085.5	1082.5
42.5°	967.9	967.9	961.9	967.9	964.9	964.9	964.9	970.9	961.9	967.9	970.9
45°	856.2	853.2	853.2	850.2	850.2	850.2	853.2	853.2	850.2	856.2	856.2
47.5°	747.8	744.8	744.8	744.8	744.8	747.8	738.8	744.8	738.8	738.8	738.8
50°	654.2	651.2	648.2	645.2	642.2	642.2	639.2	639.2	633.1	630.1	627.1
52.5°	563.9	560.9	554.8	554.8	551.8	548.8	539.8	539.8	530.6	527.6	527.6
55°	482.4	473.4	470.4	464.4	464.4	458.2	452.2	446.2	437.2	431.1	431.1
57.5°	407.0	398.0	392.0	389.0	386.0	379.9	367.9	364.9	352.8	349.8	346.8
60°	340.8	331.6	322.6	316.6	313.6	304.5	292.5	286.5	280.4	271.4	262.4
62.5°	277.4	268.4	256.2	253.2	247.2	238.2	229.1	220.1	214.1	205.0	199.0
65°	223.1	214.1	205.0	199.0	193.0	183.9	174.9	165.9	159.8	156.8	153.8
67.5°	180.9	168.9	159.8	156.8	150.8	144.8	135.6	132.6	126.6	126.6	126.6
70°	141.8	132.6	123.6	120.6	117.6	111.5	105.5	105.5	105.5	105.5	105.5
72.5°	105.5	99.5	90.5	87.5	84.4	81.4	75.4	78.4	75.4	75.4	75.4
75°	66.4	60.2	54.2	51.2	48.2	45.2	42.2	39.2	36.1	33.1	33.1
77.5°	36.1	30.1	27.1	24.1	24.1	21.1	18.1	18.1	15.1	15.1	15.1
80°	21.1	18.1	15.1	12.0	12.0	9.0	9.0	9.0	9.0	6.0	6.0
82.5°	12.0	9.0	6.0	6.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0
85°	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.0
87.5°	3.0	3.0	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: P252397

CATALOG NUMBER: LE\_6B40D010 EC6B30509040 6LBLWW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6	2321.6
2.5°	2303.6	2312.6	2303.6	2312.6	2312.6	2312.6	2312.6	2303.6
5°	2288.5	2294.5	2285.5	2291.5	2294.5	2291.5	2291.5	2282.5
7.5°	2261.4	2267.4	2258.4	2267.4	2270.4	2267.4	2264.4	2258.4
10°	2234.2	2237.2	2228.2	2234.2	2240.2	2240.2	2237.2	2228.2
12.5°	2192.0	2201.1	2192.0	2198.0	2204.1	2207.1	2207.1	2198.0
15°	2143.8	2158.9	2152.9	2161.9	2170.9	2173.9	2173.9	2170.9
17.5°	2095.5	2110.6	2101.6	2116.6	2125.8	2131.8	2134.8	2128.8
20°	2026.2	2044.2	2038.2	2050.4	2062.4	2071.4	2071.4	2062.4
22.5°	1935.8	1959.9	1956.9	1965.9	1981.0	1984.0	1990.0	1984.0
25°	1836.2	1854.4	1851.2	1860.4	1878.5	1878.5	1881.5	1881.5
27.5°	1721.6	1739.8	1736.8	1742.8	1754.9	1757.9	1760.9	1754.9
30°	1598.0	1607.1	1607.1	1616.1	1625.1	1628.2	1628.2	1619.1
32.5°	1462.4	1474.4	1480.5	1477.4	1486.5	1492.5	1489.5	1489.5
35°	1338.8	1341.8	1344.8	1347.8	1350.8	1356.9	1350.8	1347.8
37.5°	1206.1	1215.1	1209.1	1215.1	1221.1	1218.1	1215.1	1215.1
40°	1085.5	1088.5	1082.5	1088.5	1091.5	1091.5	1091.5	1085.5
42.5°	964.9	970.9	964.9	970.9	970.9	970.9	970.9	967.9
45°	844.2	850.2	850.2	853.2	853.2	850.2	850.2	850.2
47.5°	732.6	738.8	732.6	738.8	741.8	735.8	735.8	735.8
50°	627.1	624.1	624.1	627.1	627.1	627.1	627.1	624.1
52.5°	518.6	521.6	521.6	521.6	524.6	521.6	524.6	524.6
55°	425.1	425.1	425.1	428.1	425.1	425.1	428.1	431.1
57.5°	340.8	337.8	334.6	334.6	337.8	334.6	334.6	334.6
60°	262.4	259.2	256.2	256.2	256.2	256.2	256.2	253.2
62.5°	196.0	196.0	196.0	199.0	199.0	199.0	199.0	202.0
65°	156.8	156.8	156.8	156.8	156.8	156.8	156.8	159.8
67.5°	126.6	126.6	126.6	129.6	129.6	129.6	129.6	129.6
70°	105.5	105.5	108.5	105.5	108.5	108.5	108.5	108.5
72.5°	72.4	72.4	72.4	72.4	72.4	69.4	72.4	69.4
75°	30.1	30.1	30.1	30.1	30.1	30.1	30.1	27.1
77.5°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
80°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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)