

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: P252398

Luminaire Tested: **LE_6B40D010 EC6B30509050 6LBLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252398
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 EC6B30509050 6LBLWW1LI
Description: PORTFOLIO 6 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4115.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.02 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

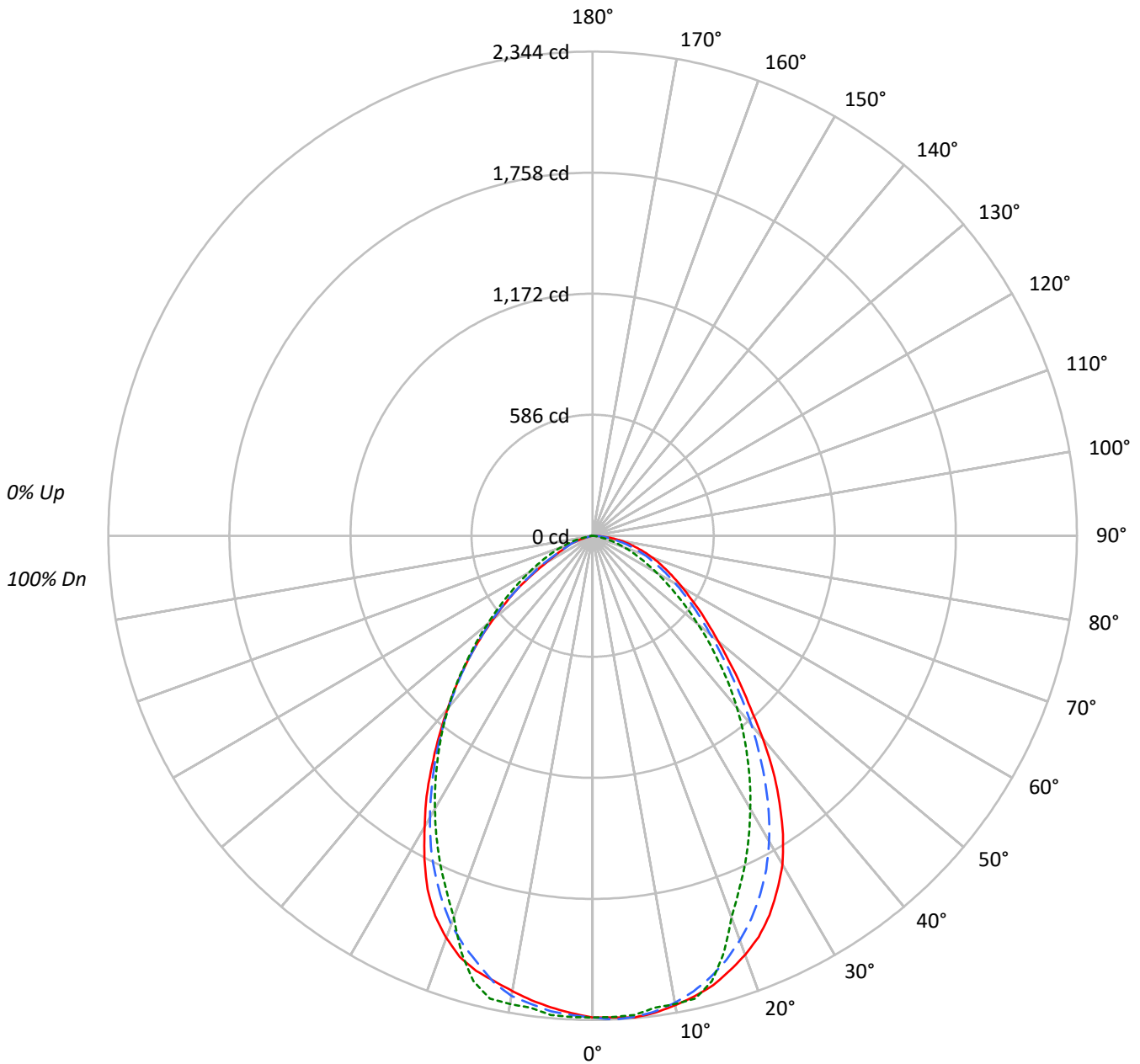
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	152115	152115	152115
5°	153286	152500	150116
10°	152858	152461	148248
15°	152166	150727	147255
20°	149894	136439	143792
25°	145827	125765	136016
30°	138463	114966	122492
35°	125647	103944	107798
40°	109089	92584	92839
45°	93039	79624	78784
50°	80527	67302	63618
55°	71988	56144	49251
60°	65580	46608	33194
65°	61224	38315	24777
70°	58351	31188	20792
75°	54951	22157	6856
80°	52298	11346	2254
85°	43042	6812	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.2	5.4
10°-20°	615.8	15.0
20°-30°	850.0	20.7
30°-40°	865.0	21.0
40°-50°	695.2	16.9
50°-60°	462.2	11.2
60°-70°	263.4	6.4
70°-80°	118.3	2.9
80°-90°	24.9	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°	1686.0	41.0
0°-40°	2551.0	62.0
0°-60°	3708.4	90.1
0°-90°	4115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4115.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2332	2332	2332	2332	2332	
5°	2341	2338	2329	2310	2292	222
15°	2253	2210	2232	2144	2180	634
25°	2026	1917	1747	1805	1890	928
35°	1578	1456	1305	1329	1354	980
45°	1008	948	863	854	854	782
55°	633	590	494	439	433	569
65°	397	354	248	160	160	395
75°	218	182	88	36	27	233
85°	58	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°	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6
2.5°	2334.6	2346.8	2343.8	2340.6	2343.8	2340.6	2334.6	2334.6	2328.6	2328.6	2343.8
5°	2340.6	2346.8	2343.8	2340.6	2340.6	2343.8	2331.6	2331.6	2325.5	2322.5	2337.6
7.5°	2328.6	2337.6	2331.6	2331.6	2328.6	2331.6	2319.5	2319.5	2310.4	2307.4	2322.5
10°	2307.4	2319.5	2313.4	2313.4	2313.4	2307.4	2301.4	2298.2	2289.2	2286.1	2295.2
12.5°	2283.1	2292.2	2289.2	2283.1	2283.1	2283.1	2271.0	2268.0	2255.9	2249.9	2258.9
15°	2252.9	2258.9	2255.9	2252.9	2246.8	2246.8	2234.8	2228.6	2216.5	2204.4	2210.5
17.5°	2207.5	2216.5	2210.5	2207.5	2198.4	2198.4	2186.2	2180.2	2162.0	2149.9	2153.0
20°	2159.0	2162.0	2159.0	2153.0	2143.9	2140.9	2128.8	2116.6	2101.5	2086.4	2083.2
22.5°	2101.5	2104.5	2095.4	2089.4	2080.2	2077.2	2062.1	2053.0	2028.8	2010.6	2007.6
25°	2025.8	2028.8	2028.8	2013.6	2007.6	2001.5	1986.4	1971.2	1950.0	1925.9	1916.8
27.5°	1934.9	1944.0	1938.0	1922.8	1910.8	1907.6	1892.5	1880.4	1853.1	1832.0	1819.9
30°	1838.0	1835.0	1832.0	1822.9	1804.8	1801.6	1786.5	1771.4	1750.2	1723.0	1707.9
32.5°	1713.9	1713.9	1710.9	1701.8	1683.6	1677.5	1665.4	1647.2	1623.0	1601.9	1586.8
35°	1577.6	1580.6	1577.6	1559.5	1547.4	1541.2	1535.2	1514.0	1492.9	1468.6	1456.5
37.5°	1435.2	1426.2	1429.2	1414.1	1399.0	1405.0	1386.9	1377.8	1353.5	1335.4	1323.2
40°	1280.9	1286.9	1274.8	1268.8	1259.6	1250.6	1250.6	1235.5	1223.4	1202.1	1196.1
42.5°	1129.5	1138.5	1135.5	1129.5	1117.4	1120.4	1105.2	1099.1	1084.0	1075.0	1065.9
45°	1008.4	1008.4	1008.4	1002.2	999.2	993.2	984.1	975.0	966.0	953.9	947.8
47.5°	890.2	890.2	893.2	887.2	881.1	878.1	872.1	872.1	856.9	844.9	838.8
50°	793.4	793.4	793.4	787.2	781.2	781.2	775.1	769.1	760.0	751.0	744.9
52.5°	705.5	705.5	705.5	699.5	696.5	693.4	690.4	687.4	675.2	669.2	663.1
55°	632.9	629.9	629.9	626.8	620.8	620.8	617.8	611.6	602.6	593.5	590.5
57.5°	560.2	563.2	560.2	560.2	554.1	554.1	548.1	545.0	536.0	529.9	523.9
60°	502.6	502.6	502.6	499.6	493.6	496.6	490.5	487.5	478.4	469.4	463.2
62.5°	445.1	448.1	448.1	445.1	439.1	439.1	436.0	433.0	423.9	414.9	405.8
65°	396.6	396.6	396.6	393.6	390.6	390.6	387.6	384.5	375.5	363.4	354.2
67.5°	351.2	348.2	348.2	348.2	345.2	342.1	339.1	336.1	327.0	318.0	305.9
70°	305.9	305.9	305.9	302.8	296.8	299.8	296.8	293.8	284.6	275.5	266.5
72.5°	263.5	263.5	260.4	257.4	257.4	254.4	254.4	251.4	242.2	230.1	221.0
75°	218.0	218.0	218.0	218.0	212.0	215.0	208.9	205.9	199.9	190.8	181.6
77.5°	178.6	178.6	178.6	175.6	172.6	172.6	169.6	166.5	157.5	151.4	139.2
80°	139.2	139.2	139.2	139.2	136.2	133.2	130.2	127.1	121.1	112.0	103.0
82.5°	103.0	103.0	99.9	99.9	99.9	96.9	93.9	90.9	84.8	78.8	72.6
85°	57.5	60.5	60.5	54.5	57.5	54.5	54.5	48.5	48.5	42.4	39.4
87.5°	21.2	18.1	18.1	18.1	18.1	18.1	18.1	15.1	15.1	15.1	12.1
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°	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6
2.5°	2331.6	2328.6	2340.6	2340.6	2322.5	2331.6	2334.6	2328.6	2328.6	2331.6	2322.5
5°	2325.5	2319.5	2331.6	2334.6	2316.5	2325.5	2328.6	2322.5	2325.5	2328.6	2316.5
7.5°	2304.4	2304.4	2313.4	2316.5	2298.2	2307.4	2307.4	2301.4	2304.4	2304.4	2295.2
10°	2283.1	2274.0	2283.1	2283.1	2268.0	2271.0	2277.1	2274.0	2286.1	2301.4	2301.4
12.5°	2243.8	2234.8	2249.9	2249.9	2240.8	2252.9	2268.0	2277.1	2289.2	2295.2	2277.1
15°	2195.4	2198.4	2225.6	2246.8	2237.8	2255.9	2271.0	2265.0	2249.9	2231.6	2204.4
17.5°	2131.8	2122.6	2146.9	2159.0	2146.9	2153.0	2165.0	2153.0	2128.8	2113.6	2077.2
20°	2059.1	2034.9	2034.9	2028.8	2007.6	2007.6	2004.6	1983.4	1974.2	1965.2	1950.0
22.5°	1977.2	1950.0	1941.0	1922.8	1904.6	1901.6	1892.5	1871.4	1859.2	1853.1	1835.0
25°	1883.5	1859.2	1844.1	1825.9	1798.6	1792.6	1783.5	1762.4	1756.2	1747.1	1732.0
27.5°	1786.5	1756.2	1735.1	1716.9	1692.6	1689.6	1671.5	1656.4	1644.2	1638.1	1626.0
30°	1674.5	1641.2	1626.0	1601.9	1583.6	1577.6	1562.5	1541.2	1532.2	1526.1	1517.0
32.5°	1550.4	1523.1	1508.0	1486.8	1462.5	1465.6	1447.4	1429.2	1423.1	1417.1	1408.0
35°	1429.2	1402.0	1383.9	1365.6	1350.5	1344.5	1332.4	1317.2	1308.1	1305.1	1299.0
37.5°	1296.0	1274.8	1259.6	1241.5	1229.4	1223.4	1217.2	1202.1	1196.1	1196.1	1184.0
40°	1165.8	1147.6	1135.5	1126.4	1111.2	1108.2	1102.2	1093.1	1090.1	1087.1	1078.0
42.5°	1047.8	1023.5	1014.4	1008.4	999.2	993.2	990.1	984.1	981.1	978.0	969.0
45°	935.6	914.5	905.4	899.4	890.2	887.2	884.2	875.1	869.0	863.0	860.0
47.5°	826.6	811.5	808.5	793.4	787.2	781.2	775.1	769.1	766.1	763.1	751.0
50°	732.8	723.8	708.5	699.5	693.4	690.4	678.2	669.2	666.1	663.1	654.0
52.5°	648.0	635.9	626.8	611.6	608.6	602.6	596.5	584.4	578.4	575.4	566.2
55°	572.2	563.2	551.1	539.0	529.9	526.9	517.8	505.6	499.6	493.6	487.5
57.5°	508.8	493.6	481.5	469.4	463.2	454.2	445.1	439.1	430.0	420.9	411.9
60°	448.1	436.0	420.9	408.8	402.8	396.6	384.5	375.5	366.4	357.2	348.2
62.5°	390.6	378.5	363.4	351.2	345.2	339.1	327.0	318.0	308.9	299.8	287.6
65°	339.1	327.0	314.9	302.8	296.8	290.8	278.6	266.5	257.4	248.2	236.1
67.5°	296.8	281.6	269.5	257.4	251.4	245.2	233.1	224.1	212.0	202.9	190.8
70°	251.4	239.2	230.1	218.0	212.0	205.9	193.8	181.6	172.6	163.5	151.4
72.5°	212.0	196.9	187.8	175.6	169.6	166.5	154.4	145.4	136.2	124.1	115.1
75°	169.6	157.5	145.4	136.2	130.2	127.1	115.1	106.0	96.9	87.9	78.8
77.5°	130.2	121.1	109.0	99.9	93.9	90.9	78.8	69.6	60.5	54.5	45.4
80°	96.9	84.8	78.8	69.6	66.6	60.5	54.5	45.4	39.4	30.2	24.2
82.5°	66.6	57.5	51.5	45.4	42.4	39.4	33.2	27.2	21.2	18.1	15.1
85°	36.4	30.2	27.2	24.2	21.2	21.2	18.1	15.1	12.1	9.1	6.0
87.5°	12.1	9.1	9.1	9.1	9.1	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°	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6
2.5°	2328.6	2328.6	2328.6	2325.5	2325.5	2325.5	2322.5	2334.6	2322.5	2319.5	2328.6
5°	2325.5	2319.5	2319.5	2319.5	2319.5	2316.5	2313.4	2319.5	2310.4	2307.4	2307.4
7.5°	2307.4	2304.4	2304.4	2301.4	2298.2	2295.2	2292.2	2295.2	2286.1	2283.1	2283.1
10°	2310.4	2304.4	2304.4	2295.2	2289.2	2280.1	2271.0	2274.0	2262.0	2252.9	2252.9
12.5°	2274.0	2258.9	2249.9	2240.8	2234.8	2231.6	2219.5	2225.6	2213.5	2210.5	2210.5
15°	2192.2	2174.1	2159.0	2153.0	2153.0	2146.9	2137.8	2149.9	2143.9	2146.9	2162.0
17.5°	2065.1	2056.0	2047.0	2043.9	2047.0	2053.0	2059.1	2077.2	2077.2	2086.4	2101.5
20°	1953.1	1947.0	1953.1	1953.1	1956.1	1968.2	1980.4	1995.5	2001.5	2010.6	2031.9
22.5°	1844.1	1844.1	1850.1	1859.2	1856.2	1877.4	1880.4	1907.6	1907.6	1925.9	1944.0
25°	1738.1	1738.1	1744.1	1747.1	1753.2	1765.4	1777.5	1798.6	1804.8	1822.9	1838.0
27.5°	1635.1	1632.1	1632.1	1635.1	1641.2	1656.4	1662.4	1686.6	1695.8	1707.9	1723.0
30°	1520.1	1517.0	1523.1	1529.1	1526.1	1541.2	1550.4	1568.5	1574.6	1586.8	1598.8
32.5°	1411.1	1411.1	1411.1	1417.1	1417.1	1429.2	1429.2	1450.4	1450.4	1459.5	1471.6
35°	1299.0	1299.0	1302.0	1305.1	1308.1	1311.1	1314.1	1326.2	1329.2	1332.4	1338.4
37.5°	1193.0	1190.0	1193.0	1193.0	1187.0	1199.1	1199.1	1211.2	1202.1	1211.2	1214.2
40°	1084.0	1084.0	1081.0	1081.0	1081.0	1087.1	1081.0	1090.1	1084.0	1090.1	1087.1
42.5°	972.0	972.0	966.0	972.0	969.0	969.0	969.0	975.0	966.0	972.0	975.0
45°	860.0	856.9	856.9	853.9	853.9	853.9	856.9	856.9	853.9	860.0	860.0
47.5°	751.0	747.9	747.9	747.9	747.9	751.0	741.9	747.9	741.9	741.9	741.9
50°	657.1	654.0	651.0	648.0	645.0	645.0	642.0	642.0	635.9	632.9	629.9
52.5°	566.2	563.2	557.1	557.1	554.1	551.1	542.0	542.0	532.9	529.9	529.9
55°	484.5	475.4	472.4	466.4	466.4	460.2	454.2	448.1	439.1	433.0	433.0
57.5°	408.8	399.8	393.6	390.6	387.6	381.5	369.4	366.4	354.2	351.2	348.2
60°	342.1	333.1	324.0	318.0	314.9	305.9	293.8	287.6	281.6	272.5	263.5
62.5°	278.6	269.5	257.4	254.4	248.2	239.2	230.1	221.0	215.0	205.9	199.9
65°	224.1	215.0	205.9	199.9	193.8	184.8	175.6	166.5	160.5	157.5	154.4
67.5°	181.6	169.6	160.5	157.5	151.4	145.4	136.2	133.2	127.1	127.1	127.1
70°	142.4	133.2	124.1	121.1	118.1	112.0	106.0	106.0	106.0	106.0	106.0
72.5°	106.0	99.9	90.9	87.9	84.8	81.8	75.8	78.8	75.8	75.8	75.8
75°	66.6	60.5	54.5	51.5	48.5	45.4	42.4	39.4	36.4	33.2	33.2
77.5°	36.4	30.2	27.2	24.2	24.2	21.2	18.1	18.1	15.1	15.1	15.1
80°	21.2	18.1	15.1	12.1	12.1	9.1	9.1	9.1	9.1	6.0	6.0
82.5°	12.1	9.1	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: P252398

CATALOG NUMBER: LE_6B40D010 EC6B30509050 6LBLWW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6	2331.6
2.5°	2313.4	2322.5	2313.4	2322.5	2322.5	2322.5	2322.5	2313.4
5°	2298.2	2304.4	2295.2	2301.4	2304.4	2301.4	2301.4	2292.2
7.5°	2271.0	2277.1	2268.0	2277.1	2280.1	2277.1	2274.0	2268.0
10°	2243.8	2246.8	2237.8	2243.8	2249.9	2249.9	2246.8	2237.8
12.5°	2201.4	2210.5	2201.4	2207.5	2213.5	2216.5	2216.5	2207.5
15°	2153.0	2168.1	2162.0	2171.1	2180.2	2183.2	2183.2	2180.2
17.5°	2104.5	2119.6	2110.5	2125.6	2134.8	2140.9	2143.9	2137.8
20°	2034.9	2053.0	2047.0	2059.1	2071.1	2080.2	2080.2	2071.1
22.5°	1944.0	1968.2	1965.2	1974.2	1989.4	1992.5	1998.5	1992.5
25°	1844.1	1862.2	1859.2	1868.2	1886.5	1886.5	1889.5	1889.5
27.5°	1729.0	1747.1	1744.1	1750.2	1762.4	1765.4	1768.4	1762.4
30°	1604.9	1614.0	1614.0	1623.0	1632.1	1635.1	1635.1	1626.0
32.5°	1468.6	1480.8	1486.8	1483.8	1492.9	1498.9	1495.9	1495.9
35°	1344.5	1347.5	1350.5	1353.5	1356.6	1362.6	1356.6	1353.5
37.5°	1211.2	1220.2	1214.2	1220.2	1226.4	1223.4	1220.2	1220.2
40°	1090.1	1093.1	1087.1	1093.1	1096.1	1096.1	1096.1	1090.1
42.5°	969.0	975.0	969.0	975.0	975.0	975.0	975.0	972.0
45°	847.9	853.9	853.9	856.9	856.9	853.9	853.9	853.9
47.5°	735.9	741.9	735.9	741.9	744.9	738.9	738.9	738.9
50°	629.9	626.8	626.8	629.9	629.9	629.9	629.9	626.8
52.5°	520.9	523.9	523.9	523.9	526.9	523.9	526.9	526.9
55°	427.0	427.0	427.0	430.0	427.0	427.0	430.0	433.0
57.5°	342.1	339.1	336.1	336.1	339.1	336.1	336.1	336.1
60°	263.5	260.4	257.4	257.4	257.4	257.4	257.4	254.4
62.5°	196.9	196.9	196.9	199.9	199.9	199.9	199.9	202.9
65°	157.5	157.5	157.5	157.5	157.5	157.5	157.5	160.5
67.5°	127.1	127.1	127.1	130.2	130.2	130.2	130.2	130.2
70°	106.0	106.0	109.0	106.0	109.0	109.0	109.0	109.0
72.5°	72.6	72.6	72.6	72.6	72.6	69.6	72.6	69.6
75°	30.2	30.2	30.2	30.2	30.2	30.2	30.2	27.2
77.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
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)