

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: P252176

Luminaire Tested: **LE_6B30D010 EC6B30509040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B30D010 EC6B30509040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE 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: 4080.0 lumens
Efficiency: N/A
Efficacy: 145.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

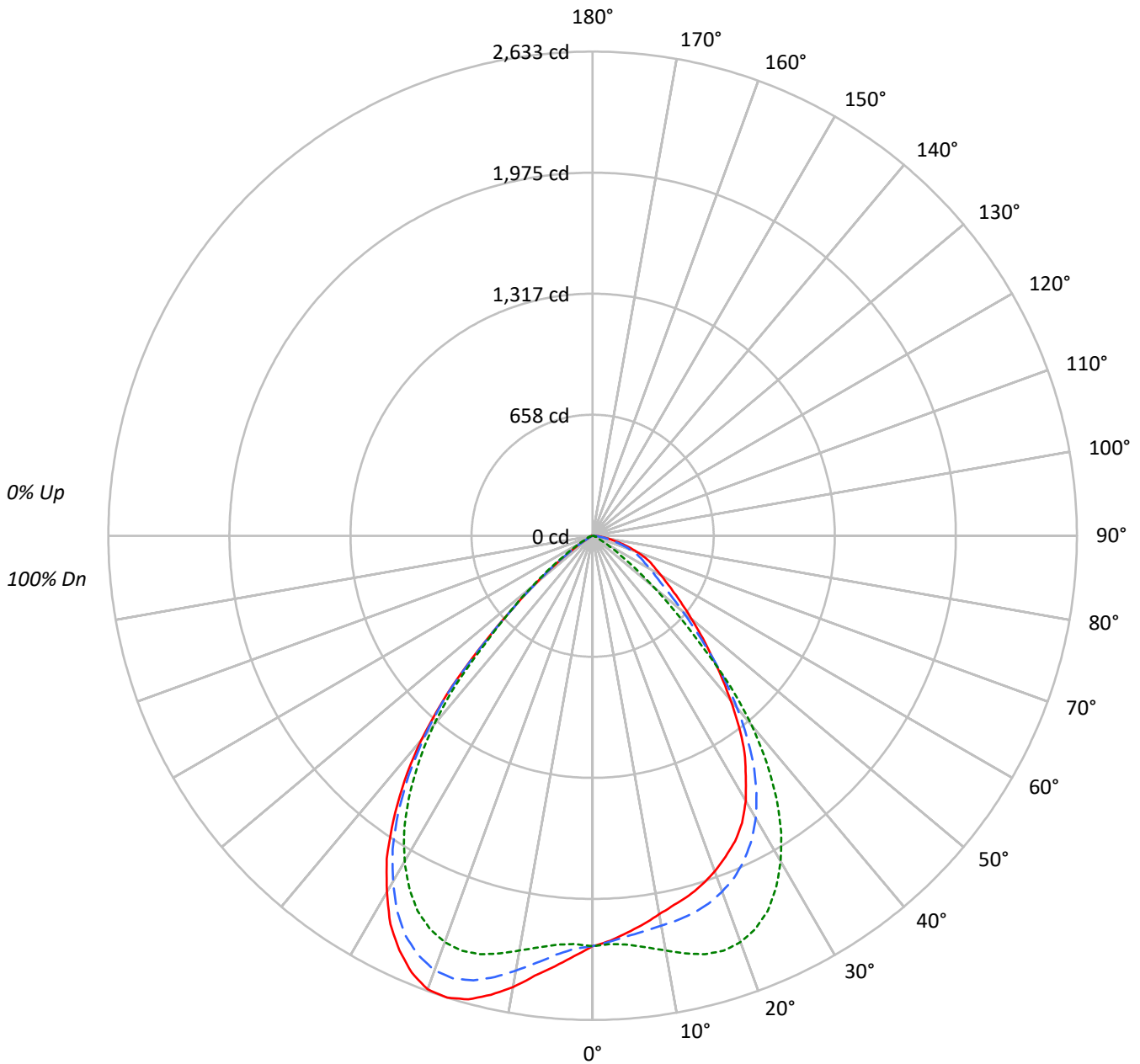
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	145624	145624	145624
5°	141844	146180	153868
10°	138397	151693	165114
15°	136779	159122	176271
20°	134822	163266	182234
25°	131949	162053	178955
30°	125392	153997	168476
35°	114719	138852	150408
40°	99226	114675	123396
45°	83674	75205	80722
50°	71037	43532	40923
55°	61649	20872	15788
60°	55689	9734	3901
65°	54030	5588	1312
70°	48432	4483	1221
75°	39802	3227	529
80°	29681	1578	0
85°	25526	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.6	5.3
10°-20°	657.1	16.1
20°-30°	1003.9	24.6
30°-40°	1050.0	25.7
40°-50°	681.2	16.7
50°-60°	270.4	6.6
60°-70°	128.3	3.1
70°-80°	61.0	1.5
80°-90°	12.4	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°	1876.6	46.0
0°-40°	2926.6	71.7
0°-60°	3878.2	95.1
0°-90°	4080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4080.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2232	2232	2232	2232	2232	
5°	2166	2185	2232	2288	2350	205
15°	2025	2123	2356	2503	2610	571
25°	1833	1948	2251	2403	2486	839
35°	1440	1528	1743	1846	1888	891
45°	907	898	815	864	875	706
55°	542	461	184	143	139	491
65°	350	290	36	8	8	342
75°	158	128	13	4	2	170
85°	34	21	0	0	0	40
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°	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1
2.5°	2204.4	2208.6	2185.1	2178.8	2195.8	2202.2	2204.4	2198.0	2200.1	2208.6	2208.6
5°	2165.9	2170.2	2148.9	2142.5	2159.5	2163.8	2170.2	2168.1	2174.5	2187.2	2185.1
7.5°	2129.6	2136.0	2112.6	2104.0	2125.4	2136.0	2140.4	2140.4	2148.9	2165.9	2168.1
10°	2089.1	2097.6	2076.2	2072.0	2095.5	2106.1	2108.4	2112.6	2125.4	2148.9	2153.1
12.5°	2055.0	2063.5	2048.6	2042.1	2067.8	2078.5	2082.8	2091.2	2106.1	2136.0	2140.4
15°	2025.1	2031.5	2014.4	2010.1	2035.8	2048.6	2050.8	2063.5	2082.8	2116.9	2123.2
17.5°	1986.6	1991.0	1978.1	1973.9	1999.5	2012.2	2014.4	2029.4	2052.9	2087.0	2097.6
20°	1941.9	1946.1	1933.4	1929.1	1954.6	1969.6	1971.8	1984.5	2012.2	2048.6	2059.2
22.5°	1888.5	1897.0	1882.1	1877.9	1903.5	1916.2	1922.6	1933.4	1961.1	1997.4	2012.2
25°	1833.0	1833.0	1822.4	1820.2	1843.8	1858.6	1856.5	1871.5	1899.2	1935.5	1948.2
27.5°	1760.5	1758.4	1747.6	1745.5	1771.1	1784.0	1779.8	1794.6	1820.2	1856.5	1869.4
30°	1664.5	1668.8	1653.8	1649.5	1670.9	1692.2	1690.1	1705.0	1730.6	1764.8	1773.2
32.5°	1549.2	1553.5	1551.4	1545.0	1564.1	1574.9	1581.2	1591.9	1613.2	1649.5	1658.0
35°	1440.4	1434.0	1425.5	1425.5	1444.6	1461.8	1455.4	1468.1	1489.5	1525.8	1527.9
37.5°	1306.0	1303.9	1299.5	1295.2	1316.6	1320.9	1323.0	1331.6	1350.8	1380.6	1376.4
40°	1165.1	1167.2	1165.1	1156.6	1169.4	1186.5	1184.4	1188.6	1205.6	1227.0	1220.6
42.5°	1032.9	1032.9	1032.9	1024.2	1039.2	1047.8	1052.0	1049.9	1054.1	1073.4	1064.9
45°	906.9	909.0	906.9	904.8	906.9	911.1	906.9	904.8	904.8	911.1	898.4
47.5°	798.1	798.1	791.6	785.2	791.6	793.9	787.4	781.0	778.9	776.8	755.4
50°	699.9	697.8	695.6	685.0	691.4	693.5	685.0	680.8	672.1	661.5	635.9
52.5°	614.6	612.4	610.2	599.6	603.9	606.0	597.5	589.0	578.2	569.8	537.8
55°	542.0	539.9	539.9	533.5	529.2	533.5	525.0	518.5	503.6	492.9	460.9
57.5°	480.1	480.1	475.9	469.5	471.6	471.6	463.0	454.5	441.8	428.9	403.2
60°	426.8	426.8	426.8	420.4	420.4	420.4	416.1	407.6	396.9	384.1	358.5
62.5°	384.1	384.1	382.0	375.6	377.8	377.8	373.4	364.9	354.2	345.8	320.1
65°	350.0	350.0	350.0	343.5	343.5	345.8	341.4	332.9	324.4	313.6	290.2
67.5°	307.2	305.1	305.1	300.9	303.0	305.1	300.9	294.5	283.8	277.4	256.1
70°	253.9	256.1	258.2	251.8	253.9	253.9	251.8	245.4	239.0	232.6	213.4
72.5°	207.0	207.0	204.9	202.8	202.8	204.9	200.6	194.1	189.9	185.6	170.8
75°	157.9	155.8	157.9	153.6	153.6	153.6	149.4	147.2	145.1	138.8	128.0
77.5°	115.2	113.1	113.1	108.9	111.0	111.0	108.9	104.5	100.2	98.1	89.6
80°	79.0	79.0	79.0	76.9	76.9	74.6	74.6	72.5	68.2	66.1	61.9
82.5°	53.4	53.4	53.4	51.2	51.2	51.2	49.1	47.0	44.8	42.6	38.4
85°	34.1	34.1	34.1	32.0	32.0	32.0	29.9	29.9	27.8	25.6	21.4
87.5°	19.2	19.2	19.2	17.1	17.1	17.1	17.1	17.1	14.9	12.8	10.6
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°	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1
2.5°	2223.5	2193.6	2212.9	2212.9	2206.5	2223.5	2234.2	2242.8	2240.6	2221.4	2219.2
5°	2206.5	2180.9	2202.2	2204.4	2198.0	2221.4	2236.4	2247.0	2249.1	2232.1	2234.2
7.5°	2193.6	2172.4	2200.1	2208.6	2206.5	2227.9	2244.9	2262.0	2270.5	2257.8	2259.9
10°	2187.2	2170.2	2200.1	2212.9	2215.0	2238.5	2264.1	2287.6	2298.2	2289.8	2296.1
12.5°	2178.8	2168.1	2202.2	2221.4	2230.0	2253.4	2285.4	2313.1	2330.2	2326.0	2338.8
15°	2170.2	2161.6	2202.2	2230.0	2240.6	2262.0	2298.2	2338.8	2358.0	2355.9	2372.9
17.5°	2148.9	2146.8	2189.4	2219.2	2234.2	2259.9	2294.0	2343.0	2362.2	2366.5	2387.9
20°	2114.8	2114.8	2161.6	2193.6	2210.8	2234.2	2276.9	2323.9	2347.4	2351.6	2375.0
22.5°	2067.8	2072.0	2116.9	2148.9	2174.5	2191.5	2236.4	2285.4	2306.8	2313.1	2338.8
25°	2005.9	2010.1	2052.9	2084.9	2112.6	2131.8	2174.5	2219.2	2244.9	2251.2	2270.5
27.5°	1924.8	1933.4	1973.9	2005.9	2029.4	2042.1	2087.0	2133.9	2153.1	2159.5	2178.8
30°	1830.9	1833.0	1873.6	1901.4	1924.8	1935.5	1973.9	2023.0	2037.9	2044.2	2072.0
32.5°	1715.6	1713.5	1752.0	1777.5	1796.8	1809.6	1850.1	1882.1	1897.0	1907.8	1922.6
35°	1577.0	1574.9	1602.6	1632.5	1647.4	1651.6	1692.2	1726.4	1734.9	1743.4	1762.6
37.5°	1421.2	1421.2	1444.6	1459.6	1476.6	1483.1	1502.2	1540.8	1555.6	1553.5	1568.4
40°	1256.9	1248.4	1265.4	1280.4	1284.6	1286.8	1306.0	1335.9	1346.5	1346.5	1357.1
42.5°	1084.0	1071.2	1073.4	1081.9	1086.1	1071.2	1084.0	1103.2	1096.9	1105.4	1107.5
45°	900.5	881.2	872.8	853.6	857.9	842.9	834.4	838.6	836.5	815.1	819.4
47.5°	751.1	717.0	702.0	674.4	667.9	650.9	640.1	621.0	603.9	603.9	593.2
50°	625.2	591.1	561.2	529.2	518.5	503.6	480.1	454.5	441.8	428.9	418.2
52.5°	525.0	488.6	452.4	418.2	403.2	384.1	352.1	326.5	303.0	290.2	277.4
55°	443.9	403.2	364.9	328.6	309.4	290.2	258.2	228.4	200.6	183.5	172.9
57.5°	382.0	343.5	303.0	264.6	247.5	226.2	192.0	160.0	134.4	115.2	104.5
60°	337.1	298.8	262.5	221.9	204.9	183.5	147.2	117.4	91.8	74.6	61.9
62.5°	298.8	264.6	226.2	189.9	172.9	151.5	117.4	87.5	64.0	47.0	36.2
65°	271.0	236.9	204.9	168.6	153.6	132.2	100.2	72.5	51.2	36.2	25.6
67.5°	239.0	209.1	177.1	147.2	132.2	115.2	85.4	61.9	42.6	29.9	21.4
70°	200.6	177.1	149.4	121.6	111.0	96.0	70.4	51.2	34.1	23.5	17.1
72.5°	160.0	140.9	119.5	98.1	89.6	74.6	57.6	40.5	25.6	17.1	12.8
75°	121.6	106.8	89.6	74.6	66.1	57.6	42.6	29.9	19.2	12.8	8.5
77.5°	83.2	76.9	64.0	51.2	47.0	40.5	27.8	19.2	12.8	8.5	4.2
80°	57.6	51.2	42.6	34.1	29.9	25.6	17.1	12.8	6.4	4.2	2.1
82.5°	36.2	29.9	25.6	21.4	19.2	14.9	10.6	6.4	4.2	2.1	2.1
85°	19.2	17.1	14.9	10.6	10.6	8.5	6.4	4.2	2.1	0.0	0.0
87.5°	10.6	8.5	6.4	4.2	4.2	2.1	2.1	2.1	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°	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1
2.5°	2244.9	2244.9	2242.8	2268.4	2238.5	2268.4	2253.4	2268.4	2247.0	2244.9	2247.0
5°	2262.0	2268.4	2270.5	2294.0	2266.2	2302.5	2289.8	2302.5	2287.6	2291.9	2298.2
7.5°	2296.1	2306.8	2304.6	2334.5	2306.8	2347.4	2338.8	2358.0	2343.0	2347.4	2355.9
10°	2334.5	2347.4	2349.5	2379.4	2353.8	2402.8	2392.1	2413.5	2400.6	2407.1	2417.8
12.5°	2379.4	2394.2	2396.4	2430.5	2402.8	2454.0	2447.6	2469.0	2458.2	2464.6	2477.5
15°	2413.5	2434.8	2439.1	2473.2	2443.4	2496.8	2492.4	2520.1	2503.1	2513.8	2524.4
17.5°	2430.5	2449.8	2458.2	2490.2	2464.6	2518.0	2513.8	2537.2	2524.4	2535.1	2547.9
20°	2419.9	2443.4	2449.8	2481.8	2456.1	2509.5	2503.1	2526.6	2513.8	2522.2	2535.1
22.5°	2381.5	2404.9	2413.5	2443.4	2419.9	2469.0	2466.9	2488.1	2471.1	2481.8	2492.4
25°	2313.1	2338.8	2343.0	2370.8	2345.1	2396.4	2392.1	2415.6	2402.8	2409.2	2424.1
27.5°	2215.0	2244.9	2251.2	2274.8	2255.5	2298.2	2298.2	2317.5	2302.5	2302.5	2317.5
30°	2097.6	2127.5	2131.8	2151.0	2133.9	2172.4	2174.5	2193.6	2170.2	2183.0	2185.1
32.5°	1954.6	1973.9	1986.6	2003.8	1978.1	2027.2	2020.9	2035.8	2023.0	2023.0	2033.6
35°	1781.9	1805.2	1811.8	1833.0	1811.8	1850.1	1850.1	1858.6	1845.9	1845.9	1862.9
37.5°	1594.0	1611.1	1613.2	1634.6	1617.5	1649.5	1647.4	1653.8	1641.0	1649.5	1649.5
40°	1374.2	1387.0	1391.4	1402.0	1399.9	1423.4	1421.2	1425.5	1419.0	1421.2	1425.5
42.5°	1118.1	1135.2	1143.8	1152.4	1139.5	1171.5	1165.1	1171.5	1169.4	1171.5	1177.9
45°	823.8	836.5	842.9	845.0	840.8	860.0	874.9	862.1	864.2	860.0	868.5
47.5°	595.4	597.5	593.2	606.0	595.4	603.9	608.1	610.2	597.5	595.4	603.9
50°	407.6	418.2	403.2	409.8	407.6	416.1	411.9	414.0	401.1	407.6	403.2
52.5°	271.0	268.9	264.6	266.8	262.5	262.5	262.5	266.8	258.2	253.9	249.6
55°	164.2	160.0	151.5	149.4	149.4	151.5	147.2	143.0	143.0	140.9	140.9
57.5°	96.0	89.6	85.4	83.2	79.0	76.9	74.6	74.6	70.4	70.4	70.4
60°	53.4	47.0	42.6	38.4	38.4	36.2	34.1	32.0	32.0	32.0	29.9
62.5°	27.8	23.5	19.2	17.1	17.1	14.9	12.8	12.8	12.8	12.8	10.6
65°	19.2	14.9	12.8	10.6	10.6	8.5	8.5	8.5	8.5	8.5	8.5
67.5°	14.9	12.8	10.6	8.5	8.5	8.5	6.4	6.4	6.4	6.4	6.4
70°	12.8	8.5	8.5	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
72.5°	8.5	8.5	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
75°	6.4	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
77.5°	2.1	2.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0
80°	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	0.0	0.0	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



TEST NUMBER: P252176

CATALOG NUMBER: LE_6B30D010 EC6B30509040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1	2232.1
2.5°	2266.2	2264.1	2266.2	2270.5	2262.0	2287.6	2274.8	2287.6
5°	2315.2	2317.5	2319.6	2326.0	2315.2	2347.4	2330.2	2349.5
7.5°	2379.4	2381.5	2383.6	2390.0	2383.6	2415.6	2396.4	2413.5
10°	2445.5	2449.8	2449.8	2460.4	2454.0	2483.9	2471.1	2492.4
12.5°	2507.4	2511.6	2515.9	2522.2	2518.0	2550.0	2539.4	2556.5
15°	2556.5	2565.0	2567.1	2575.6	2571.4	2605.5	2592.8	2609.8
17.5°	2579.9	2588.5	2588.5	2599.1	2594.9	2631.1	2614.0	2633.2
20°	2567.1	2573.5	2575.6	2586.4	2582.0	2618.4	2601.2	2624.8
22.5°	2526.6	2528.8	2530.9	2541.5	2539.4	2571.4	2556.5	2571.4
25°	2451.9	2458.2	2456.1	2464.6	2464.6	2490.2	2473.2	2486.0
27.5°	2345.1	2351.6	2351.6	2362.2	2353.8	2379.4	2362.2	2381.5
30°	2215.0	2221.4	2217.1	2225.6	2217.1	2242.8	2230.0	2236.4
32.5°	2059.2	2059.2	2061.4	2063.5	2059.2	2082.8	2069.9	2082.8
35°	1873.6	1877.9	1880.0	1882.1	1877.9	1894.9	1880.0	1888.5
37.5°	1664.5	1675.1	1673.0	1675.1	1668.8	1690.1	1677.2	1681.5
40°	1440.4	1440.4	1438.2	1442.5	1436.1	1453.2	1444.6	1448.9
42.5°	1180.0	1186.5	1177.9	1188.6	1171.5	1195.0	1186.5	1180.0
45°	885.6	877.0	874.9	877.0	870.6	872.8	879.1	874.9
47.5°	603.9	603.9	599.6	593.2	601.8	603.9	595.4	595.4
50°	405.5	405.5	401.1	399.0	403.2	401.1	396.9	403.2
52.5°	258.2	249.6	249.6	253.9	249.6	245.4	251.8	247.5
55°	140.9	136.6	136.6	140.9	136.6	136.6	134.4	138.8
57.5°	68.2	70.4	68.2	68.2	68.2	68.2	66.1	68.2
60°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9
62.5°	12.8	12.8	10.6	10.6	10.6	10.6	10.6	10.6
65°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
67.5°	6.4	6.4	6.4	6.4	6.4	8.5	6.4	6.4
70°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
72.5°	6.4	6.4	8.5	8.5	8.5	8.5	8.5	8.5
75°	4.2	4.2	4.2	2.1	2.1	2.1	2.1	2.1
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)