

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: P252291

Luminaire Tested: **LE_6B40D010 EC6B30509030 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252291
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 EC6B30509030 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4122.5 lumens
Efficiency: N/A
Efficacy: 95.9 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

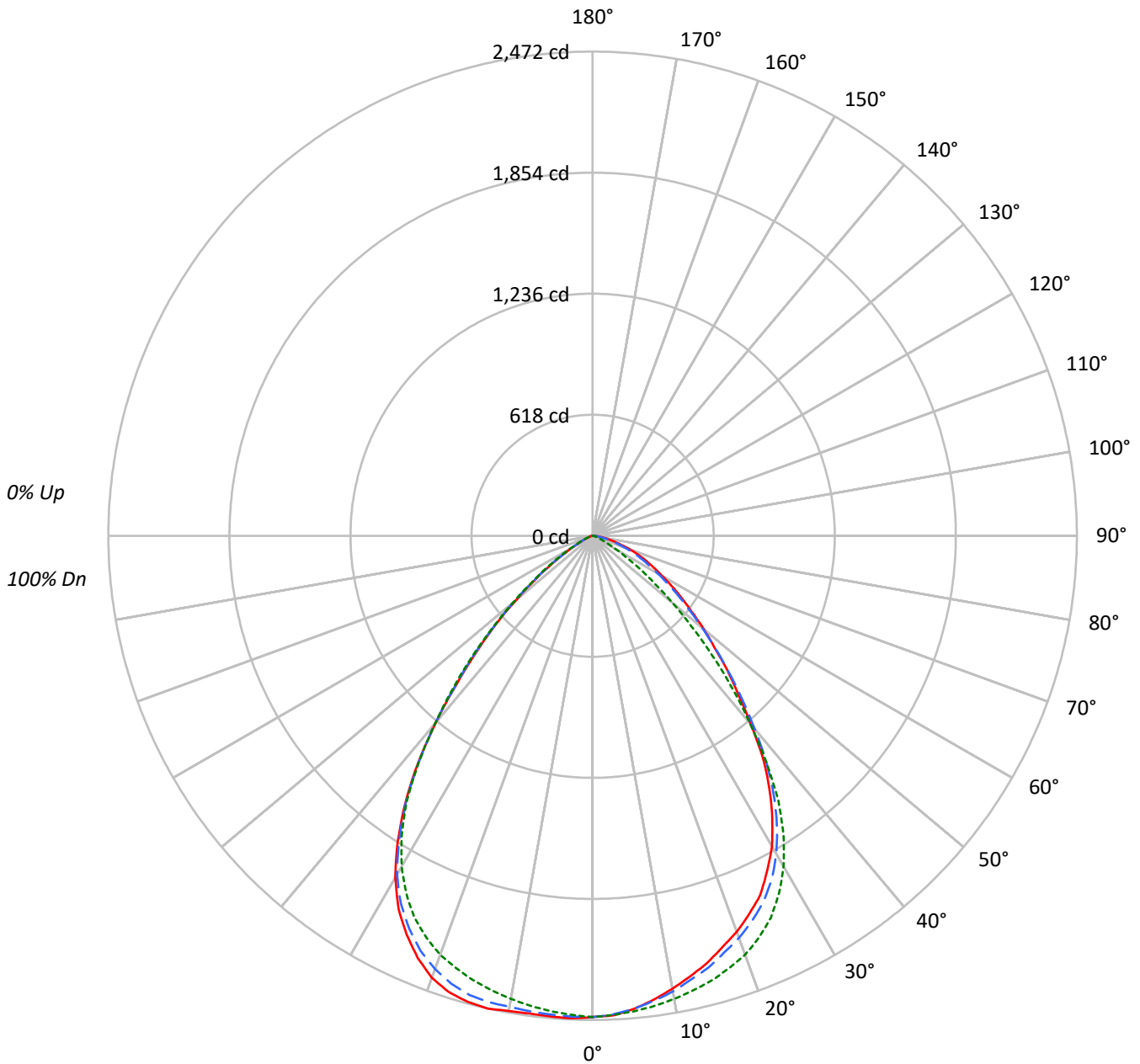
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	160309	160309	160309
5°	158787	159566	161315
10°	155515	159053	163180
15°	152537	158751	166370
20°	149380	158031	166689
25°	145698	154883	161714
30°	137943	146885	151804
35°	125272	131652	132838
40°	106917	106406	105903
45°	89810	79679	77216
50°	75006	53915	51205
55°	63128	33088	30040
60°	53432	17419	15110
65°	46281	9170	7333
70°	38494	5646	3968
75°	28434	3756	2243
80°	22317	2217	1127
85°	17816	2246	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.6	5.6
10°-20°	663.1	16.1
20°-30°	979.2	23.8
30°-40°	1009.1	24.5
40°-50°	697.0	16.9
50°-60°	343.5	8.3
60°-70°	139.2	3.4
70°-80°	49.6	1.2
80°-90°	10.3	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°	1873.8	45.5
0°-40°	2882.9	69.9
0°-60°	3923.4	95.2
0°-90°	4122.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4122.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2457	2457	2457	2457	2457	
5°	2425	2425	2436	2454	2463	229
15°	2258	2282	2350	2428	2463	636
25°	2024	2062	2152	2214	2246	925
35°	1573	1612	1653	1662	1668	975
45°	973	979	864	852	837	752
55°	555	534	291	273	264	501
65°	300	270	59	48	48	298
75°	113	95	15	9	9	127
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°	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2
2.5°	2451.4	2442.4	2448.4	2436.5	2451.4	2436.5	2439.5	2442.4	2439.5	2442.4	2445.4
5°	2424.6	2415.8	2424.6	2409.8	2424.6	2415.8	2415.8	2418.6	2418.6	2421.6	2424.6
7.5°	2389.0	2380.1	2389.0	2374.1	2392.0	2383.1	2383.1	2389.0	2386.0	2389.0	2395.0
10°	2347.5	2335.6	2344.5	2335.6	2353.4	2341.5	2347.5	2347.5	2347.5	2356.4	2362.2
12.5°	2303.0	2291.1	2303.0	2288.1	2305.9	2297.0	2300.0	2308.9	2311.9	2317.8	2320.8
15°	2258.4	2243.6	2249.5	2240.6	2258.4	2249.5	2252.5	2264.4	2264.4	2273.2	2282.1
17.5°	2202.0	2190.1	2202.0	2190.1	2205.0	2199.1	2205.0	2213.9	2213.9	2222.9	2231.8
20°	2151.6	2139.8	2148.6	2139.8	2157.5	2148.6	2151.6	2163.5	2166.4	2175.4	2184.2
22.5°	2089.2	2080.4	2086.2	2077.4	2095.2	2089.2	2092.2	2104.1	2107.1	2113.0	2127.9
25°	2024.0	2006.1	2015.1	2009.1	2027.0	2018.0	2024.0	2035.9	2041.8	2050.6	2062.5
27.5°	1929.0	1920.1	1926.0	1926.0	1940.9	1932.0	1935.0	1946.9	1955.8	1964.6	1979.5
30°	1831.1	1816.2	1822.1	1825.1	1837.0	1831.1	1837.0	1848.9	1851.9	1863.8	1875.6
32.5°	1706.4	1700.5	1712.4	1706.4	1712.4	1712.4	1715.4	1724.2	1730.1	1736.1	1751.0
35°	1572.9	1561.0	1572.9	1567.0	1581.8	1572.9	1581.8	1590.8	1590.8	1602.6	1611.5
37.5°	1427.5	1412.6	1418.6	1418.6	1424.5	1421.5	1421.5	1436.4	1439.4	1448.2	1457.1
40°	1255.4	1249.4	1261.2	1258.2	1261.2	1261.2	1264.2	1273.1	1279.1	1282.0	1285.0
42.5°	1101.0	1104.0	1107.0	1107.0	1107.0	1107.0	1107.0	1118.9	1115.9	1124.8	1127.8
45°	973.4	961.5	967.5	964.5	973.4	964.5	973.4	982.2	976.4	985.2	979.4
47.5°	842.9	842.9	842.9	839.9	845.8	842.9	848.8	851.8	851.8	851.8	848.8
50°	739.0	730.0	733.0	733.0	736.0	733.0	739.0	741.9	741.9	736.0	724.1
52.5°	638.0	635.1	635.1	641.0	641.0	638.0	638.0	638.0	638.0	629.1	623.2
55°	555.0	549.0	552.0	552.0	552.0	552.0	555.0	552.0	552.0	543.1	534.2
57.5°	480.8	474.9	474.9	474.9	477.8	474.9	474.9	474.9	471.9	463.0	451.1
60°	409.5	406.6	409.5	409.5	412.5	409.5	409.5	409.5	403.6	394.8	382.9
62.5°	350.2	350.2	350.2	353.1	353.1	350.2	350.2	347.2	344.2	332.4	320.5
65°	299.8	296.8	299.8	299.8	302.8	302.8	299.8	296.8	293.8	281.9	270.0
67.5°	249.2	246.4	249.2	249.2	252.2	249.2	249.2	249.2	240.4	234.5	222.6
70°	201.8	198.9	198.9	198.9	201.8	195.9	198.9	198.9	192.9	184.0	172.1
72.5°	154.4	154.4	154.4	154.4	154.4	154.4	151.4	151.4	145.4	136.5	130.6
75°	112.8	112.8	115.8	115.8	112.8	112.8	112.8	109.8	106.9	100.9	95.0
77.5°	83.1	83.1	83.1	83.1	80.1	80.1	80.1	77.1	74.2	71.2	65.2
80°	59.4	59.4	59.4	56.4	59.4	56.4	56.4	56.4	50.5	47.5	44.5
82.5°	41.5	38.6	38.6	38.6	38.6	38.6	38.6	35.6	35.6	32.6	29.6
85°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	20.8	17.8	17.8
87.5°	11.9	14.9	14.9	14.9	14.9	14.9	14.9	11.9	11.9	11.9	8.9
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°	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2
2.5°	2445.4	2445.4	2451.4	2442.4	2457.2	2448.4	2445.4	2460.2	2451.4	2448.4	2454.2
5°	2424.6	2427.6	2430.5	2424.6	2439.5	2430.5	2430.5	2445.4	2439.5	2436.5	2445.4
7.5°	2397.9	2400.9	2406.9	2403.9	2415.8	2409.8	2412.8	2427.6	2421.6	2421.6	2430.5
10°	2365.2	2371.2	2377.1	2377.1	2392.0	2386.0	2386.0	2403.9	2397.9	2400.9	2412.8
12.5°	2326.6	2335.6	2344.5	2347.5	2362.2	2353.4	2356.4	2377.1	2374.1	2377.1	2389.0
15°	2285.1	2297.0	2305.9	2305.9	2323.8	2314.9	2323.8	2344.5	2338.5	2350.4	2365.2
17.5°	2237.6	2249.5	2261.4	2264.4	2282.1	2276.2	2288.1	2308.9	2308.9	2314.9	2332.6
20°	2193.1	2208.0	2213.9	2222.9	2240.6	2237.6	2243.6	2267.4	2267.4	2276.2	2294.0
22.5°	2133.8	2148.6	2160.5	2169.4	2184.2	2184.2	2193.1	2213.9	2213.9	2219.9	2237.6
25°	2068.5	2086.2	2095.2	2104.1	2119.0	2116.0	2124.9	2142.6	2145.6	2151.6	2169.4
27.5°	1985.4	2000.2	2012.1	2018.0	2038.9	2027.0	2035.9	2056.6	2053.6	2059.6	2074.4
30°	1881.5	1896.4	1908.2	1908.2	1926.0	1926.0	1935.0	1943.9	1943.9	1949.8	1961.6
32.5°	1759.9	1777.6	1777.6	1786.5	1798.4	1786.5	1798.4	1810.2	1804.4	1813.2	1822.1
35°	1620.4	1629.2	1632.2	1632.2	1641.1	1638.1	1635.2	1644.1	1638.1	1653.0	1661.9
37.5°	1451.2	1463.1	1457.1	1463.1	1460.1	1451.2	1451.2	1466.0	1454.1	1457.1	1466.0
40°	1288.0	1288.0	1285.0	1270.1	1273.1	1264.2	1261.2	1264.2	1252.4	1249.4	1261.2
42.5°	1118.9	1115.9	1107.0	1086.1	1089.1	1074.2	1062.5	1062.5	1056.5	1053.5	1056.5
45°	967.5	958.6	943.8	920.0	914.0	902.1	878.5	872.5	863.6	863.6	866.6
47.5°	828.0	816.1	792.4	765.6	750.9	736.0	712.2	703.4	688.5	682.6	688.5
50°	712.2	691.5	661.8	623.2	608.4	590.6	566.9	552.0	537.1	531.2	528.2
52.5°	605.4	575.8	546.0	498.6	486.8	468.9	436.2	421.4	406.6	394.8	394.8
55°	513.4	486.8	445.1	400.6	382.9	365.0	332.4	311.6	296.8	290.9	284.9
57.5°	430.4	400.6	362.0	314.6	296.8	279.0	246.4	225.5	210.8	201.8	195.9
60°	362.0	329.4	290.9	249.2	228.5	210.8	178.1	157.2	142.5	133.5	127.6
62.5°	296.8	270.0	231.5	192.9	175.1	157.2	130.6	109.8	95.0	89.0	80.1
65°	249.2	222.6	187.0	154.4	139.5	121.6	97.9	80.1	68.2	59.4	53.4
67.5°	201.8	181.0	151.4	121.6	106.9	95.0	74.2	59.4	47.5	41.5	38.6
70°	160.2	139.5	115.8	92.0	83.1	71.2	56.4	41.5	35.6	29.6	26.8
72.5°	118.8	103.9	86.1	68.2	59.4	53.4	38.6	32.6	23.8	20.8	17.8
75°	86.1	74.2	62.4	47.5	41.5	38.6	29.6	20.8	17.8	14.9	11.9
77.5°	59.4	53.4	41.5	32.6	29.6	26.8	20.8	14.9	11.9	8.9	8.9
80°	38.6	32.6	26.8	20.8	20.8	17.8	11.9	8.9	8.9	5.9	5.9
82.5°	23.8	20.8	17.8	14.9	11.9	11.9	8.9	5.9	5.9	3.0	3.0
85°	14.9	11.9	8.9	8.9	5.9	5.9	5.9	3.0	3.0	3.0	3.0
87.5°	5.9	5.9	5.9	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°	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2
2.5°	2454.2	2454.2	2460.2	2451.4	2457.2	2457.2	2463.2	2451.4	2457.2	2460.2	2466.1
5°	2442.4	2445.4	2451.4	2448.4	2451.4	2451.4	2457.2	2442.4	2454.2	2454.2	2463.2
7.5°	2430.5	2430.5	2436.5	2433.5	2439.5	2442.4	2448.4	2436.5	2448.4	2448.4	2457.2
10°	2415.8	2415.8	2424.6	2421.6	2430.5	2433.5	2442.4	2430.5	2442.4	2445.4	2454.2
12.5°	2395.0	2397.9	2406.9	2406.9	2415.8	2421.6	2430.5	2424.6	2439.5	2442.4	2454.2
15°	2371.2	2377.1	2389.0	2386.0	2395.0	2403.9	2415.8	2406.9	2427.6	2433.5	2445.4
17.5°	2341.5	2347.5	2356.4	2356.4	2365.2	2371.2	2386.0	2380.1	2397.9	2400.9	2415.8
20°	2297.0	2305.9	2317.8	2314.9	2323.8	2329.6	2341.5	2335.6	2353.4	2359.4	2374.1
22.5°	2243.6	2249.5	2258.4	2258.4	2267.4	2273.2	2285.1	2276.2	2294.0	2297.0	2308.9
25°	2172.4	2178.2	2184.2	2187.2	2196.1	2199.1	2205.0	2199.1	2213.9	2216.9	2231.8
27.5°	2080.4	2083.4	2092.2	2092.2	2098.1	2101.1	2110.0	2098.1	2119.0	2119.0	2127.9
30°	1970.5	1967.6	1979.5	1973.5	1979.5	1979.5	1988.4	1982.4	1997.2	1991.4	2000.2
32.5°	1825.1	1831.1	1831.1	1825.1	1837.0	1834.0	1834.0	1828.1	1837.0	1840.0	1845.9
35°	1656.0	1664.9	1664.9	1667.9	1670.9	1661.9	1664.9	1647.1	1661.9	1664.9	1667.9
37.5°	1472.0	1463.1	1469.0	1460.1	1475.0	1457.1	1457.1	1445.2	1457.1	1457.1	1460.1
40°	1261.2	1258.2	1264.2	1258.2	1255.4	1252.4	1246.5	1237.5	1249.4	1243.5	1252.4
42.5°	1062.5	1059.5	1059.5	1053.5	1050.6	1050.6	1044.6	1038.8	1035.8	1035.8	1050.6
45°	857.6	863.6	857.6	854.8	860.6	854.8	857.6	845.8	851.8	845.8	851.8
47.5°	685.5	688.5	682.6	676.6	685.5	676.6	676.6	667.8	679.6	679.6	673.6
50°	531.2	528.2	522.4	528.2	525.2	525.2	525.2	516.4	522.4	513.4	519.4
52.5°	391.8	388.8	388.8	385.8	388.8	385.8	385.8	382.9	382.9	379.9	382.9
55°	284.9	281.9	276.0	276.0	276.0	279.0	276.0	273.0	273.0	270.0	273.0
57.5°	192.9	187.0	187.0	187.0	187.0	184.0	184.0	181.0	184.0	181.0	184.0
60°	124.6	124.6	118.8	118.8	118.8	118.8	118.8	115.8	118.8	118.8	118.8
62.5°	77.1	77.1	74.2	71.2	74.2	71.2	71.2	71.2	74.2	71.2	74.2
65°	50.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
67.5°	35.6	32.6	32.6	32.6	32.6	32.6	32.6	29.6	32.6	32.6	32.6
70°	23.8	23.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
72.5°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
75°	11.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
77.5°	8.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
80°	5.9	5.9	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: P252291

CATALOG NUMBER: LE_6B40D010 EC6B30509030 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2	2457.2
2.5°	2457.2	2460.2	2454.2	2457.2	2451.4	2457.2	2460.2	2466.1
5°	2451.4	2454.2	2448.4	2454.2	2448.4	2454.2	2457.2	2463.2
7.5°	2445.4	2451.4	2445.4	2451.4	2445.4	2451.4	2454.2	2460.2
10°	2445.4	2454.2	2448.4	2457.2	2448.4	2454.2	2460.2	2463.2
12.5°	2445.4	2454.2	2451.4	2457.2	2454.2	2460.2	2466.1	2472.1
15°	2439.5	2448.4	2442.4	2451.4	2448.4	2451.4	2463.2	2463.2
17.5°	2406.9	2415.8	2415.8	2421.6	2421.6	2430.5	2436.5	2442.4
20°	2365.2	2374.1	2371.2	2380.1	2380.1	2389.0	2395.0	2400.9
22.5°	2303.0	2314.9	2311.9	2320.8	2317.8	2323.8	2335.6	2332.6
25°	2222.9	2237.6	2234.6	2240.6	2237.6	2237.6	2243.6	2246.5
27.5°	2124.9	2133.8	2130.9	2136.8	2130.9	2136.8	2142.6	2145.6
30°	1997.2	2003.2	2000.2	2003.2	2000.2	2006.1	2009.1	2015.1
32.5°	1843.0	1851.9	1843.0	1848.9	1845.9	1845.9	1857.8	1851.9
35°	1659.0	1661.9	1664.9	1664.9	1659.0	1661.9	1667.9	1667.9
37.5°	1454.1	1469.0	1451.2	1460.1	1457.1	1457.1	1457.1	1466.0
40°	1240.5	1243.5	1237.5	1237.5	1237.5	1234.6	1246.5	1243.5
42.5°	1038.8	1041.6	1038.8	1029.8	1032.8	1032.8	1041.6	1029.8
45°	842.9	848.8	845.8	845.8	839.9	839.9	842.9	836.9
47.5°	667.8	673.6	664.8	667.8	661.8	667.8	664.8	670.8
50°	507.5	513.4	510.5	513.4	513.4	507.5	516.4	504.5
52.5°	379.9	382.9	379.9	376.9	373.9	373.9	379.9	376.9
55°	270.0	267.1	267.1	267.1	270.0	270.0	267.1	264.1
57.5°	181.0	181.0	178.1	178.1	181.0	175.1	178.1	175.1
60°	115.8	115.8	115.8	115.8	112.8	115.8	115.8	115.8
62.5°	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
65°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
67.5°	29.6	32.6	32.6	32.6	29.6	29.6	29.6	29.6
70°	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
72.5°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
75°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
77.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
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)