

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: P252293

Luminaire Tested: **LE_6B40D010 EC6B30509040 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252293
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 EC6B30509040 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4187.5 lumens
Efficiency: N/A
Efficacy: 97.4 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

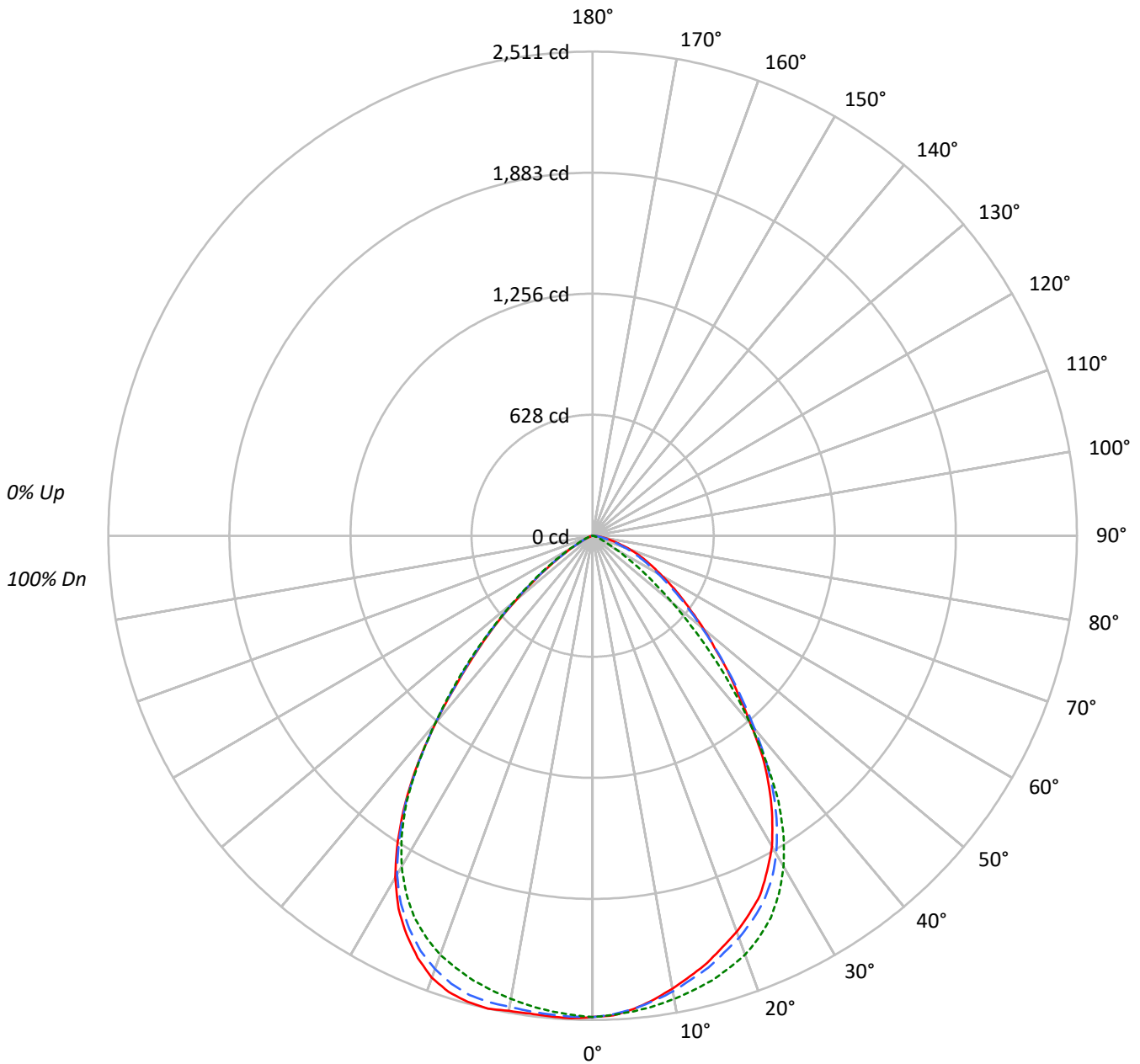
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	162841	162841	162841
5°	161295	162081	163856
10°	157966	161563	165750
15°	154942	161257	168990
20°	151734	160524	169320
25°	147994	157323	164270
30°	140120	149198	154200
35°	127239	133730	134925
40°	108595	108084	107573
45°	91231	80934	78434
50°	76183	54767	52017
55°	64129	33600	30506
60°	54280	17693	15345
65°	47006	9293	7441
70°	39104	5742	4025
75°	28862	3806	2269
80°	22617	2254	1127
85°	18040	2246	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.2	5.6
10°-20°	673.5	16.1
20°-30°	994.6	23.8
30°-40°	1025.0	24.5
40°-50°	708.0	16.9
50°-60°	349.0	8.3
60°-70°	141.4	3.4
70°-80°	50.4	1.2
80°-90°	10.4	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°	1903.4	45.5
0°-40°	2928.4	69.9
0°-60°	3985.3	95.2
0°-90°	4187.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4187.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2496	2496	2496	2496	2496	
5°	2463	2463	2475	2493	2502	233
15°	2294	2318	2388	2466	2502	646
25°	2056	2095	2186	2249	2282	940
35°	1598	1637	1679	1688	1694	990
45°	989	995	877	865	850	764
55°	564	543	295	277	268	509
65°	304	274	60	48	48	302
75°	114	96	15	9	9	129
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°	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0
2.5°	2490.0	2480.9	2487.0	2474.9	2490.0	2474.9	2477.9	2480.9	2477.9	2480.9	2484.0
5°	2462.9	2453.8	2462.9	2447.8	2462.9	2453.8	2453.8	2456.9	2456.9	2459.9	2462.9
7.5°	2426.6	2417.6	2426.6	2411.6	2429.8	2420.6	2420.6	2426.6	2423.6	2426.6	2432.8
10°	2384.5	2372.4	2381.5	2372.4	2390.5	2378.5	2384.5	2384.5	2384.5	2393.5	2399.5
12.5°	2339.2	2327.2	2339.2	2324.1	2342.2	2333.2	2336.2	2345.2	2348.2	2354.4	2357.4
15°	2294.0	2279.0	2285.0	2276.0	2294.0	2285.0	2288.0	2300.1	2300.1	2309.1	2318.1
17.5°	2236.8	2224.8	2236.8	2224.8	2239.8	2233.8	2239.8	2248.9	2248.9	2257.9	2266.9
20°	2185.5	2173.5	2182.5	2173.5	2191.5	2182.5	2185.5	2197.6	2200.6	2209.6	2218.6
22.5°	2122.2	2113.1	2119.2	2110.1	2128.2	2122.2	2125.2	2137.2	2140.2	2146.4	2161.4
25°	2055.9	2037.8	2046.9	2040.9	2058.9	2049.9	2055.9	2068.0	2074.0	2083.0	2095.1
27.5°	1959.4	1950.4	1956.4	1956.4	1971.5	1962.5	1965.5	1977.5	1986.5	1995.6	2010.6
30°	1860.0	1844.9	1850.9	1853.9	1866.0	1860.0	1866.0	1878.0	1881.0	1893.1	1905.1
32.5°	1733.4	1727.2	1739.4	1733.4	1739.4	1739.4	1742.4	1751.4	1757.5	1763.5	1778.5
35°	1597.6	1585.6	1597.6	1591.6	1606.8	1597.6	1606.8	1615.8	1615.8	1627.9	1636.9
37.5°	1450.0	1434.9	1440.9	1440.9	1447.0	1444.0	1444.0	1459.0	1462.0	1471.1	1480.1
40°	1275.1	1269.1	1281.1	1278.1	1281.1	1281.1	1284.1	1293.2	1299.2	1302.2	1305.2
42.5°	1118.4	1121.4	1124.4	1124.4	1124.4	1124.4	1124.4	1136.5	1133.5	1142.5	1145.5
45°	988.8	976.8	982.8	979.8	988.8	979.8	988.8	997.8	991.8	1000.9	994.8
47.5°	856.1	856.1	856.1	853.1	859.1	856.1	862.1	865.1	865.1	865.1	862.1
50°	750.6	741.6	744.6	744.6	747.6	744.6	750.6	753.6	753.6	747.6	735.5
52.5°	648.1	645.1	645.1	651.1	651.1	648.1	648.1	648.1	648.1	639.1	633.0
55°	563.8	557.6	560.8	560.8	560.8	560.8	563.8	560.8	560.8	551.6	542.6
57.5°	488.4	482.4	482.4	482.4	485.4	482.4	482.4	482.4	479.2	470.2	458.2
60°	416.0	413.0	416.0	416.0	419.0	416.0	416.0	416.0	410.0	400.9	388.9
62.5°	355.8	355.8	355.8	358.8	358.8	355.8	355.8	352.8	349.6	337.6	325.6
65°	304.5	301.5	304.5	304.5	307.5	307.5	304.5	301.5	298.4	286.4	274.4
67.5°	253.2	250.2	253.2	253.2	256.2	253.2	253.2	253.2	244.1	238.1	226.1
70°	205.0	202.0	202.0	202.0	205.0	199.0	202.0	202.0	196.0	186.9	174.9
72.5°	156.8	156.8	156.8	156.8	156.8	156.8	153.8	153.8	147.8	138.6	132.6
75°	114.5	114.5	117.6	117.6	114.5	114.5	114.5	111.5	108.5	102.5	96.5
77.5°	84.4	84.4	84.4	84.4	81.4	81.4	81.4	78.4	75.4	72.4	66.4
80°	60.2	60.2	60.2	57.2	60.2	57.2	57.2	57.2	51.2	48.2	45.2
82.5°	42.2	39.2	39.2	39.2	39.2	39.2	39.2	36.1	36.1	33.1	30.1
85°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	21.1	18.1	18.1
87.5°	12.0	15.1	15.1	15.1	15.1	15.1	15.1	12.0	12.0	12.0	9.0
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°	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0
2.5°	2484.0	2484.0	2490.0	2480.9	2496.0	2487.0	2484.0	2499.0	2490.0	2487.0	2493.0
5°	2462.9	2465.9	2468.9	2462.9	2477.9	2468.9	2468.9	2484.0	2477.9	2474.9	2484.0
7.5°	2435.8	2438.8	2444.8	2441.8	2453.8	2447.8	2450.8	2465.9	2459.9	2459.9	2468.9
10°	2402.5	2408.6	2414.6	2414.6	2429.8	2423.6	2423.6	2441.8	2435.8	2438.8	2450.8
12.5°	2363.4	2372.4	2381.5	2384.5	2399.5	2390.5	2393.5	2414.6	2411.6	2414.6	2426.6
15°	2321.1	2333.2	2342.2	2342.2	2360.4	2351.2	2360.4	2381.5	2375.4	2387.5	2402.5
17.5°	2272.9	2285.0	2297.0	2300.1	2318.1	2312.1	2324.1	2345.2	2345.2	2351.2	2369.4
20°	2227.8	2242.8	2248.9	2257.9	2276.0	2272.9	2279.0	2303.1	2303.1	2312.1	2330.2
22.5°	2167.4	2182.5	2194.5	2203.6	2218.6	2218.6	2227.8	2248.9	2248.9	2254.9	2272.9
25°	2101.1	2119.2	2128.2	2137.2	2152.4	2149.4	2158.4	2176.5	2179.5	2185.5	2203.6
27.5°	2016.8	2031.8	2043.9	2049.9	2071.0	2058.9	2068.0	2089.0	2086.0	2092.1	2107.1
30°	1911.2	1926.2	1938.4	1938.4	1956.4	1956.4	1965.5	1974.5	1974.5	1980.5	1992.6
32.5°	1787.6	1805.6	1805.6	1814.8	1826.8	1814.8	1826.8	1838.9	1832.9	1841.9	1850.9
35°	1645.9	1655.0	1658.0	1658.0	1667.0	1664.0	1661.0	1670.0	1664.0	1679.1	1688.1
37.5°	1474.1	1486.1	1480.1	1486.1	1483.1	1474.1	1474.1	1489.1	1477.1	1480.1	1489.1
40°	1308.2	1308.2	1305.2	1290.2	1293.2	1284.1	1281.1	1284.1	1272.1	1269.1	1281.1
42.5°	1136.5	1133.5	1124.4	1103.2	1106.4	1091.2	1079.2	1079.2	1073.1	1070.1	1073.1
45°	982.8	973.6	958.6	934.5	928.5	916.4	892.2	886.2	877.2	877.2	880.2
47.5°	841.0	829.0	804.9	777.8	762.6	747.6	723.5	714.4	699.4	693.4	699.4
50°	723.5	702.4	672.2	633.0	618.0	599.9	575.8	560.8	545.6	539.6	536.6
52.5°	615.0	584.9	554.6	506.4	494.4	476.2	443.1	428.0	413.0	400.9	400.9
55°	521.5	494.4	452.1	407.0	388.9	370.8	337.6	316.5	301.5	295.4	289.4
57.5°	437.1	407.0	367.8	319.5	301.5	283.4	250.2	229.1	214.0	205.0	199.0
60°	367.8	334.6	295.4	253.2	232.1	214.0	180.9	159.8	144.8	135.6	129.6
62.5°	301.5	274.4	235.1	196.0	177.9	159.8	132.6	111.5	96.5	90.4	81.4
65°	253.2	226.1	189.9	156.8	141.6	123.6	99.5	81.4	69.4	60.2	54.2
67.5°	205.0	183.9	153.8	123.6	108.5	96.5	75.4	60.2	48.2	42.2	39.2
70°	162.8	141.6	117.6	93.5	84.4	72.4	57.2	42.2	36.1	30.1	27.1
72.5°	120.6	105.5	87.4	69.4	60.2	54.2	39.2	33.1	24.1	21.1	18.1
75°	87.4	75.4	63.2	48.2	42.2	39.2	30.1	21.1	18.1	15.1	12.0
77.5°	60.2	54.2	42.2	33.1	30.1	27.1	21.1	15.1	12.0	9.0	9.0
80°	39.2	33.1	27.1	21.1	21.1	18.1	12.0	9.0	9.0	6.0	6.0
82.5°	24.1	21.1	18.1	15.1	12.0	12.0	9.0	6.0	6.0	3.0	3.0
85°	15.1	12.0	9.0	9.0	6.0	6.0	6.0	3.0	3.0	3.0	3.0
87.5°	6.0	6.0	6.0	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°	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0
2.5°	2493.0	2493.0	2499.0	2490.0	2496.0	2496.0	2502.0	2490.0	2496.0	2499.0	2505.0
5°	2480.9	2484.0	2490.0	2487.0	2490.0	2490.0	2496.0	2480.9	2493.0	2493.0	2502.0
7.5°	2468.9	2468.9	2474.9	2471.9	2477.9	2480.9	2487.0	2474.9	2487.0	2487.0	2496.0
10°	2453.8	2453.8	2462.9	2459.9	2468.9	2471.9	2480.9	2468.9	2480.9	2484.0	2493.0
12.5°	2432.8	2435.8	2444.8	2444.8	2453.8	2459.9	2468.9	2462.9	2477.9	2480.9	2493.0
15°	2408.6	2414.6	2426.6	2423.6	2432.8	2441.8	2453.8	2444.8	2465.9	2471.9	2484.0
17.5°	2378.5	2384.5	2393.5	2393.5	2402.5	2408.6	2423.6	2417.6	2435.8	2438.8	2453.8
20°	2333.2	2342.2	2354.4	2351.2	2360.4	2366.4	2378.5	2372.4	2390.5	2396.5	2411.6
22.5°	2279.0	2285.0	2294.0	2294.0	2303.1	2309.1	2321.1	2312.1	2330.2	2333.2	2345.2
25°	2206.6	2212.6	2218.6	2221.8	2230.8	2233.8	2239.8	2233.8	2248.9	2251.9	2266.9
27.5°	2113.1	2116.1	2125.2	2125.2	2131.2	2134.2	2143.2	2131.2	2152.4	2152.4	2161.4
30°	2001.6	1998.6	2010.6	2004.6	2010.6	2010.6	2019.8	2013.6	2028.8	2022.8	2031.8
32.5°	1853.9	1860.0	1860.0	1853.9	1866.0	1863.0	1863.0	1856.9	1866.0	1869.0	1875.0
35°	1682.1	1691.1	1691.1	1694.1	1697.1	1688.1	1691.1	1673.0	1688.1	1691.1	1694.1
37.5°	1495.2	1486.1	1492.1	1483.1	1498.2	1480.1	1480.1	1468.0	1480.1	1480.1	1483.1
40°	1281.1	1278.1	1284.1	1278.1	1275.1	1272.1	1266.1	1257.0	1269.1	1263.1	1272.1
42.5°	1079.2	1076.1	1076.1	1070.1	1067.1	1067.1	1061.1	1055.1	1052.0	1052.0	1067.1
45°	871.2	877.2	871.2	868.1	874.2	868.1	871.2	859.1	865.1	859.1	865.1
47.5°	696.4	699.4	693.4	687.2	696.4	687.2	687.2	678.2	690.4	690.4	684.2
50°	539.6	536.6	530.5	536.6	533.6	533.6	533.6	524.5	530.5	521.5	527.5
52.5°	397.9	394.9	394.9	391.9	394.9	391.9	391.9	388.9	388.9	385.9	388.9
55°	289.4	286.4	280.4	280.4	280.4	283.4	280.4	277.4	277.4	274.4	277.4
57.5°	196.0	189.9	189.9	189.9	189.9	186.9	186.9	183.9	186.9	183.9	186.9
60°	126.6	126.6	120.6	120.6	120.6	120.6	120.6	117.6	120.6	120.6	120.6
62.5°	78.4	78.4	75.4	72.4	75.4	72.4	72.4	72.4	75.4	72.4	75.4
65°	51.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2
67.5°	36.1	33.1	33.1	33.1	33.1	33.1	33.1	30.1	33.1	33.1	33.1
70°	24.1	24.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
72.5°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
75°	12.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
77.5°	9.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
80°	6.0	6.0	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: P252293

CATALOG NUMBER: LE_6B40D010 EC6B30509040 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0	2496.0
2.5°	2496.0	2499.0	2493.0	2496.0	2490.0	2496.0	2499.0	2505.0
5°	2490.0	2493.0	2487.0	2493.0	2487.0	2493.0	2496.0	2502.0
7.5°	2484.0	2490.0	2484.0	2490.0	2484.0	2490.0	2493.0	2499.0
10°	2484.0	2493.0	2487.0	2496.0	2487.0	2493.0	2499.0	2502.0
12.5°	2484.0	2493.0	2490.0	2496.0	2493.0	2499.0	2505.0	2511.1
15°	2477.9	2487.0	2480.9	2490.0	2487.0	2490.0	2502.0	2502.0
17.5°	2444.8	2453.8	2453.8	2459.9	2459.9	2468.9	2474.9	2480.9
20°	2402.5	2411.6	2408.6	2417.6	2417.6	2426.6	2432.8	2438.8
22.5°	2339.2	2351.2	2348.2	2357.4	2354.4	2360.4	2372.4	2369.4
25°	2257.9	2272.9	2269.9	2276.0	2272.9	2272.9	2279.0	2282.0
27.5°	2158.4	2167.4	2164.4	2170.5	2164.4	2170.5	2176.5	2179.5
30°	2028.8	2034.8	2031.8	2034.8	2031.8	2037.8	2040.9	2046.9
32.5°	1872.0	1881.0	1872.0	1878.0	1875.0	1875.0	1887.1	1881.0
35°	1685.1	1688.1	1691.1	1691.1	1685.1	1688.1	1694.1	1694.1
37.5°	1477.1	1492.1	1474.1	1483.1	1480.1	1480.1	1480.1	1489.1
40°	1260.0	1263.1	1257.0	1257.0	1257.0	1254.0	1266.1	1263.1
42.5°	1055.1	1058.1	1055.1	1046.0	1049.0	1049.0	1058.1	1046.0
45°	856.1	862.1	859.1	859.1	853.1	853.1	856.1	850.1
47.5°	678.2	684.2	675.2	678.2	672.2	678.2	675.2	681.2
50°	515.5	521.5	518.5	521.5	521.5	515.5	524.5	512.5
52.5°	385.9	388.9	385.9	382.9	379.9	379.9	385.9	382.9
55°	274.4	271.2	271.2	271.2	274.4	274.4	271.2	268.2
57.5°	183.9	183.9	180.9	180.9	183.9	177.9	180.9	177.9
60°	117.6	117.6	117.6	117.6	114.5	117.6	117.6	117.6
62.5°	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
65°	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2
67.5°	30.1	33.1	33.1	33.1	30.1	30.1	30.1	30.1
70°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
72.5°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
75°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
77.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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)