

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: P252170

Luminaire Tested: **LE_6B30D010 EC6B30508040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252170
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 EC6B30508040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4870.0 lumens
Efficiency: N/A
Efficacy: 173.9 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

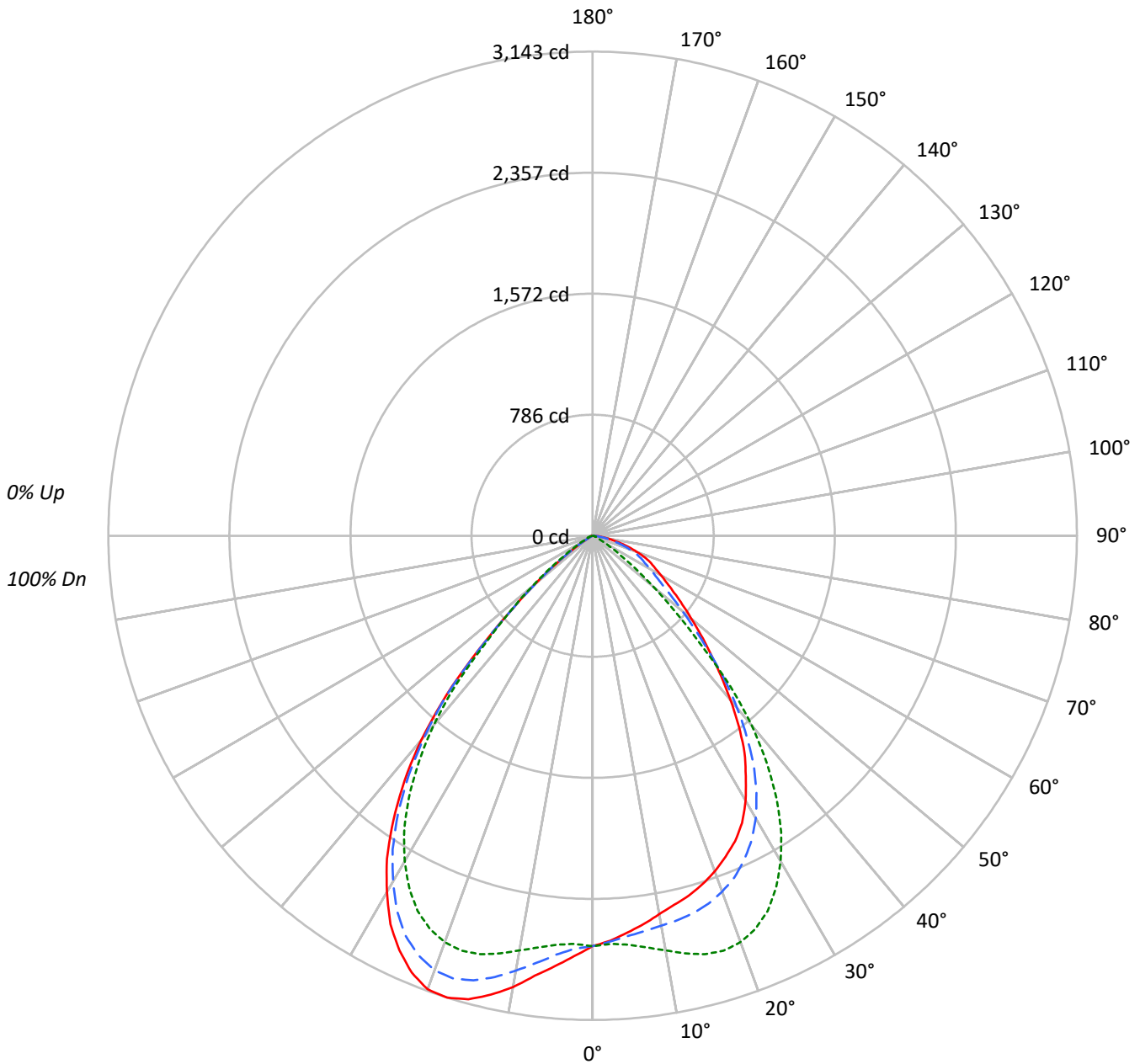
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	173814	173814	173814
5°	169317	174478	183660
10°	165194	181053	197085
15°	163263	189928	210400
20°	160926	194876	217517
25°	157503	193438	213608
30°	149672	183821	201095
35°	136924	165739	179534
40°	118448	136878	147294
45°	99876	89773	96361
50°	84800	51966	48860
55°	73592	24910	18825
60°	66467	11626	4645
65°	64497	6669	1575
70°	57817	5341	1450
75°	47515	3831	630
80°	35391	1916	0
85°	30541	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.3	5.3
10°-20°	784.3	16.1
20°-30°	1198.3	24.6
30°-40°	1253.3	25.7
40°-50°	813.1	16.7
50°-60°	322.8	6.6
60°-70°	153.1	3.1
70°-80°	72.8	1.5
80°-90°	14.9	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°	2240.0	46.0
0°-40°	3493.3	71.7
0°-60°	4629.2	95.1
0°-90°	4870.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4870.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2664	2664	2664	2664	2664	
5°	2585	2608	2664	2730	2804	244
15°	2417	2534	2812	2988	3115	681
25°	2188	2326	2687	2868	2967	1002
35°	1719	1824	2081	2203	2254	1063
45°	1082	1072	973	1032	1044	842
55°	647	550	219	171	166	586
65°	418	346	43	10	10	408
75°	188	153	15	5	2	203
85°	41	26	0	0	0	47
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°	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2
2.5°	2631.1	2636.2	2608.2	2600.6	2621.0	2628.6	2631.1	2623.5	2626.1	2636.2	2636.2
5°	2585.4	2590.4	2564.9	2557.2	2577.6	2582.8	2590.4	2587.9	2595.5	2610.8	2608.2
7.5°	2542.0	2549.6	2521.6	2511.5	2536.9	2549.6	2554.8	2554.8	2564.9	2585.4	2587.9
10°	2493.6	2503.8	2478.4	2473.2	2501.2	2514.0	2516.5	2521.6	2536.9	2564.9	2570.0
12.5°	2452.9	2463.0	2445.2	2437.6	2468.1	2480.9	2486.0	2496.1	2514.0	2549.6	2554.8
15°	2417.2	2424.9	2404.5	2399.4	2430.0	2445.2	2447.8	2463.0	2486.0	2526.8	2534.4
17.5°	2371.4	2376.5	2361.1	2356.1	2386.6	2401.9	2404.5	2422.2	2450.4	2491.1	2503.8
20°	2317.9	2323.0	2307.6	2302.6	2333.1	2351.0	2353.5	2368.8	2401.9	2445.2	2458.0
22.5°	2254.2	2264.4	2246.5	2241.5	2272.0	2287.2	2295.0	2307.6	2340.8	2384.1	2401.9
25°	2188.0	2188.0	2175.2	2172.6	2200.8	2218.5	2216.0	2233.9	2266.9	2310.2	2325.5
27.5°	2101.4	2098.9	2086.1	2083.5	2114.1	2129.4	2124.2	2142.1	2172.6	2216.0	2231.2
30°	1986.8	1991.9	1974.0	1968.9	1994.4	2019.9	2017.2	2035.1	2065.8	2106.5	2116.6
32.5°	1849.2	1854.2	1851.8	1844.1	1867.0	1879.8	1887.4	1900.1	1925.6	1968.9	1979.1
35°	1719.2	1711.6	1701.5	1701.5	1724.4	1744.8	1737.1	1752.4	1777.9	1821.1	1823.8
37.5°	1558.9	1556.2	1551.2	1546.1	1571.6	1576.6	1579.2	1589.4	1612.4	1648.0	1642.9
40°	1390.8	1393.2	1390.8	1380.5	1395.9	1416.2	1413.6	1418.8	1439.1	1464.6	1457.0
42.5°	1232.8	1232.8	1232.8	1222.6	1240.5	1250.6	1255.8	1253.1	1258.2	1281.2	1271.0
45°	1082.5	1085.1	1082.5	1080.0	1082.5	1087.6	1082.5	1080.0	1080.0	1087.6	1072.4
47.5°	952.6	952.6	945.0	937.4	945.0	947.5	939.9	932.2	929.8	927.1	901.6
50°	835.5	832.9	830.4	817.6	825.2	827.8	817.6	812.5	802.4	789.6	759.0
52.5°	733.6	731.0	728.5	715.8	720.9	723.4	713.2	703.0	690.2	680.1	641.9
55°	647.0	644.4	644.4	636.8	631.6	636.8	626.6	619.0	601.1	588.4	550.1
57.5°	573.1	573.1	568.0	560.4	562.9	562.9	552.8	542.5	527.2	512.0	481.4
60°	509.4	509.4	509.4	501.8	501.8	501.8	496.6	486.5	473.8	458.5	427.9
62.5°	458.5	458.5	455.9	448.2	450.9	450.9	445.8	435.5	422.9	412.6	382.1
65°	417.8	417.8	417.8	410.1	410.1	412.6	407.5	397.4	387.1	374.4	346.4
67.5°	366.8	364.2	364.2	359.1	361.8	364.2	359.1	351.5	338.8	331.1	305.6
70°	303.1	305.6	308.2	300.5	303.1	303.1	300.5	292.9	285.2	277.6	254.8
72.5°	247.1	247.1	244.5	242.0	242.0	244.5	239.4	231.8	226.8	221.6	203.8
75°	188.5	186.0	188.5	183.4	183.4	183.4	178.2	175.8	173.2	165.5	152.9
77.5°	137.5	135.0	135.0	129.9	132.5	132.5	129.9	124.8	119.8	117.1	107.0
80°	94.2	94.2	94.2	91.8	91.8	89.1	89.1	86.6	81.5	79.0	73.9
82.5°	63.6	63.6	63.6	61.1	61.1	61.1	58.6	56.0	53.5	51.0	45.9
85°	40.8	40.8	40.8	38.2	38.2	38.2	35.6	35.6	33.1	30.6	25.5
87.5°	22.9	22.9	22.9	20.4	20.4	20.4	20.4	20.4	17.9	15.2	12.8
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°	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2
2.5°	2654.1	2618.4	2641.4	2641.4	2633.8	2654.1	2666.9	2677.0	2674.5	2651.5	2649.0
5°	2633.8	2603.1	2628.6	2631.1	2623.5	2651.5	2669.4	2682.1	2684.6	2664.2	2666.9
7.5°	2618.4	2593.0	2626.1	2636.2	2633.8	2659.1	2679.5	2699.9	2710.1	2694.9	2697.4
10°	2610.8	2590.4	2626.1	2641.4	2643.9	2671.9	2702.5	2730.5	2743.2	2733.0	2740.8
12.5°	2600.6	2587.9	2628.6	2651.5	2661.8	2689.8	2728.0	2761.1	2781.5	2776.4	2791.6
15°	2590.4	2580.2	2628.6	2661.8	2674.5	2699.9	2743.2	2791.6	2814.5	2812.0	2832.4
17.5°	2564.9	2562.4	2613.4	2649.0	2666.9	2697.4	2738.1	2796.8	2819.6	2824.8	2850.2
20°	2524.1	2524.1	2580.2	2618.4	2638.8	2666.9	2717.8	2773.8	2801.9	2806.9	2834.9
22.5°	2468.1	2473.2	2526.8	2564.9	2595.5	2615.9	2669.4	2728.0	2753.4	2761.1	2791.6
25°	2394.2	2399.4	2450.4	2488.5	2521.6	2544.5	2595.5	2649.0	2679.5	2687.2	2710.1
27.5°	2297.5	2307.6	2356.1	2394.2	2422.2	2437.6	2491.1	2547.1	2570.0	2577.6	2600.6
30°	2185.4	2188.0	2236.4	2269.5	2297.5	2310.2	2356.1	2414.6	2432.5	2440.1	2473.2
32.5°	2047.9	2045.4	2091.1	2121.8	2144.6	2160.0	2208.4	2246.5	2264.4	2277.1	2295.0
35°	1882.2	1879.8	1912.9	1948.5	1966.4	1971.5	2019.9	2060.6	2070.8	2081.0	2103.9
37.5°	1696.4	1696.4	1724.4	1742.2	1762.6	1770.2	1793.1	1839.0	1856.9	1854.2	1872.1
40°	1500.2	1490.0	1510.4	1528.2	1533.4	1535.9	1558.9	1594.5	1607.2	1607.2	1620.0
42.5°	1293.9	1278.6	1281.2	1291.4	1296.5	1278.6	1293.9	1316.9	1309.2	1319.4	1322.0
45°	1074.9	1052.0	1041.8	1018.9	1023.9	1006.1	995.9	1001.0	998.5	973.0	978.1
47.5°	896.6	855.9	838.0	804.9	797.2	776.9	764.1	741.2	720.9	720.9	708.1
50°	746.2	705.5	669.9	631.6	619.0	601.1	573.1	542.5	527.2	512.0	499.2
52.5°	626.6	583.2	540.0	499.2	481.4	458.5	420.2	389.8	361.8	346.4	331.1
55°	529.8	481.4	435.5	392.2	369.4	346.4	308.2	272.5	239.4	219.0	206.4
57.5°	455.9	410.1	361.8	315.9	295.5	270.0	229.2	191.0	160.5	137.5	124.8
60°	402.5	356.6	313.2	264.9	244.5	219.0	175.8	140.1	109.5	89.1	73.9
62.5°	356.6	315.9	270.0	226.8	206.4	180.9	140.1	104.4	76.4	56.0	43.2
65°	323.5	282.8	244.5	201.2	183.4	157.9	119.8	86.6	61.1	43.2	30.6
67.5°	285.2	249.6	211.4	175.8	157.9	137.5	101.9	73.9	51.0	35.6	25.5
70°	239.4	211.4	178.2	145.1	132.5	114.6	84.0	61.1	40.8	28.0	20.4
72.5°	191.0	168.1	142.6	117.1	107.0	89.1	68.8	48.4	30.6	20.4	15.2
75°	145.1	127.4	107.0	89.1	79.0	68.8	51.0	35.6	22.9	15.2	10.2
77.5°	99.4	91.8	76.4	61.1	56.0	48.4	33.1	22.9	15.2	10.2	5.1
80°	68.8	61.1	51.0	40.8	35.6	30.6	20.4	15.2	7.6	5.1	2.5
82.5°	43.2	35.6	30.6	25.5	22.9	17.9	12.8	7.6	5.1	2.5	2.5
85°	22.9	20.4	17.9	12.8	12.8	10.2	7.6	5.1	2.5	0.0	0.0
87.5°	12.8	10.2	7.6	5.1	5.1	2.5	2.5	2.5	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°	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2
2.5°	2679.5	2679.5	2677.0	2707.6	2671.9	2707.6	2689.8	2707.6	2682.1	2679.5	2682.1
5°	2699.9	2707.6	2710.1	2738.1	2705.0	2748.4	2733.0	2748.4	2730.5	2735.6	2743.2
7.5°	2740.8	2753.4	2750.9	2786.5	2753.4	2801.9	2791.6	2814.5	2796.8	2801.9	2812.0
10°	2786.5	2801.9	2804.4	2840.0	2809.5	2868.0	2855.2	2880.8	2865.5	2873.1	2885.9
12.5°	2840.0	2857.9	2860.4	2901.1	2868.0	2929.1	2921.5	2947.0	2934.2	2941.9	2957.2
15°	2880.8	2906.2	2911.4	2952.1	2916.5	2980.1	2975.0	3008.1	2987.8	3000.5	3013.2
17.5°	2901.1	2924.1	2934.2	2972.5	2941.9	3005.6	3000.5	3028.5	3013.2	3026.0	3041.2
20°	2888.4	2916.5	2924.1	2962.2	2931.8	2995.4	2987.8	3015.8	3000.5	3010.6	3026.0
22.5°	2842.6	2870.6	2880.8	2916.5	2888.4	2947.0	2944.5	2969.9	2949.5	2962.2	2975.0
25°	2761.1	2791.6	2796.8	2829.9	2799.2	2860.4	2855.2	2883.4	2868.0	2875.6	2893.5
27.5°	2643.9	2679.5	2687.2	2715.2	2692.2	2743.2	2743.2	2766.1	2748.4	2748.4	2766.1
30°	2503.8	2539.5	2544.5	2567.5	2547.1	2593.0	2595.5	2618.4	2590.4	2605.8	2608.2
32.5°	2333.1	2356.1	2371.4	2391.8	2361.1	2419.8	2412.1	2430.0	2414.6	2414.6	2427.4
35°	2126.9	2154.9	2162.5	2188.0	2162.5	2208.4	2208.4	2218.5	2203.2	2203.2	2223.6
37.5°	1902.8	1923.1	1925.6	1951.1	1930.8	1968.9	1966.4	1974.0	1958.8	1968.9	1968.9
40°	1640.4	1655.6	1660.8	1673.5	1670.9	1698.9	1696.4	1701.5	1693.9	1696.4	1701.5
42.5°	1334.6	1355.0	1365.2	1375.5	1360.1	1398.4	1390.8	1398.4	1395.9	1398.4	1406.0
45°	983.1	998.5	1006.1	1008.6	1003.5	1026.5	1044.4	1029.0	1031.6	1026.5	1036.6
47.5°	710.6	713.2	708.1	723.4	710.6	720.9	725.9	728.5	713.2	710.6	720.9
50°	486.5	499.2	481.4	489.0	486.5	496.6	491.6	494.1	478.9	486.5	481.4
52.5°	323.5	320.9	315.9	318.4	313.2	313.2	313.2	318.4	308.2	303.1	298.0
55°	196.1	191.0	180.9	178.2	178.2	180.9	175.8	170.6	170.6	168.1	168.1
57.5°	114.6	107.0	101.9	99.4	94.2	91.8	89.1	89.1	84.0	84.0	84.0
60°	63.6	56.0	51.0	45.9	45.9	43.2	40.8	38.2	38.2	38.2	35.6
62.5°	33.1	28.0	22.9	20.4	20.4	17.9	15.2	15.2	15.2	15.2	12.8
65°	22.9	17.9	15.2	12.8	12.8	10.2	10.2	10.2	10.2	10.2	10.2
67.5°	17.9	15.2	12.8	10.2	10.2	10.2	7.6	7.6	7.6	7.6	7.6
70°	15.2	10.2	10.2	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
72.5°	10.2	10.2	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
75°	7.6	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	2.5	2.5	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0
80°	2.5	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: P252170

CATALOG NUMBER: LE_6B30D010 EC6B30508040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2	2664.2
2.5°	2705.0	2702.5	2705.0	2710.1	2699.9	2730.5	2715.2	2730.5
5°	2763.6	2766.1	2768.8	2776.4	2763.6	2801.9	2781.5	2804.4
7.5°	2840.0	2842.6	2845.1	2852.8	2845.1	2883.4	2860.4	2880.8
10°	2919.0	2924.1	2924.1	2936.9	2929.1	2964.9	2949.5	2975.0
12.5°	2992.9	2998.0	3003.0	3010.6	3005.6	3043.8	3031.0	3051.4
15°	3051.4	3061.6	3064.1	3074.4	3069.2	3110.0	3094.8	3115.1
17.5°	3079.5	3089.6	3089.6	3102.4	3097.2	3140.6	3120.2	3143.1
20°	3064.1	3071.8	3074.4	3087.1	3082.0	3125.2	3104.9	3133.0
22.5°	3015.8	3018.4	3020.9	3033.6	3031.0	3069.2	3051.4	3069.2
25°	2926.6	2934.2	2931.8	2941.9	2941.9	2972.5	2952.1	2967.4
27.5°	2799.2	2806.9	2806.9	2819.6	2809.5	2840.0	2819.6	2842.6
30°	2643.9	2651.5	2646.5	2656.6	2646.5	2677.0	2661.8	2669.4
32.5°	2458.0	2458.0	2460.5	2463.0	2458.0	2486.0	2470.8	2486.0
35°	2236.4	2241.5	2244.0	2246.5	2241.5	2261.9	2244.0	2254.2
37.5°	1986.8	1999.5	1996.9	1999.5	1991.9	2017.2	2002.0	2007.1
40°	1719.2	1719.2	1716.8	1721.9	1714.2	1734.6	1724.4	1729.5
42.5°	1408.5	1416.2	1406.0	1418.8	1398.4	1426.4	1416.2	1408.5
45°	1057.0	1046.9	1044.4	1046.9	1039.2	1041.8	1049.4	1044.4
47.5°	720.9	720.9	715.8	708.1	718.2	720.9	710.6	710.6
50°	484.0	484.0	478.9	476.2	481.4	478.9	473.8	481.4
52.5°	308.2	298.0	298.0	303.1	298.0	292.9	300.5	295.5
55°	168.1	163.0	163.0	168.1	163.0	163.0	160.5	165.5
57.5°	81.5	84.0	81.5	81.5	81.5	81.5	79.0	81.5
60°	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6
62.5°	15.2	15.2	12.8	12.8	12.8	12.8	12.8	12.8
65°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
67.5°	7.6	7.6	7.6	7.6	7.6	10.2	7.6	7.6
70°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
72.5°	7.6	7.6	10.2	10.2	10.2	10.2	10.2	10.2
75°	5.1	5.1	5.1	2.5	2.5	2.5	2.5	2.5
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)