

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: P252618

Luminaire Tested: **LE_6B50D010R EC6B30509040 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252618
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B50D010R EC6B30509040 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE 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: 5778.8 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

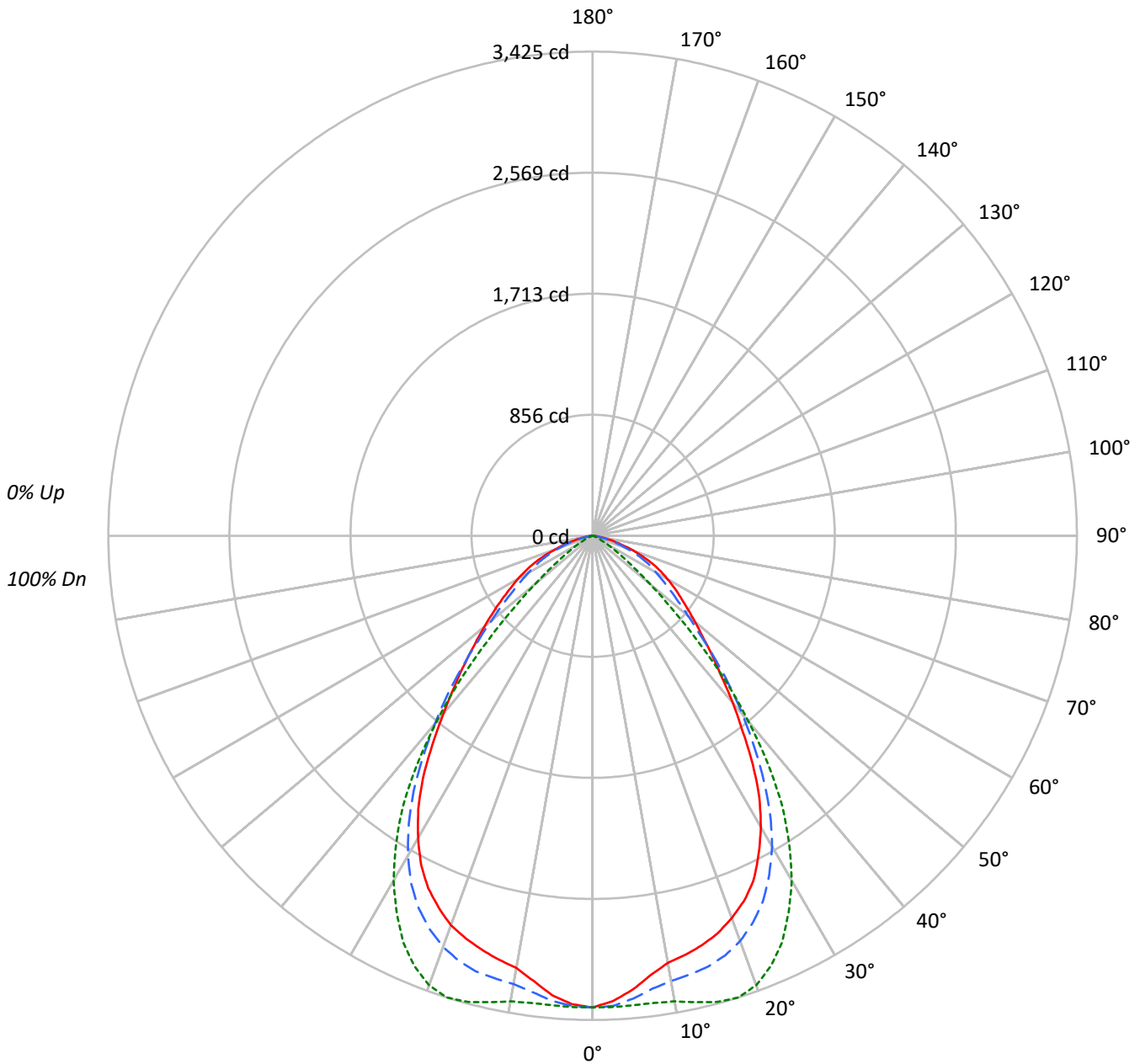
Input Watts (W): 58.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79			79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70			70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50			50
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46			46
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42			42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38			38
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35			35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	217669	217669	217669
5°	211172	218245	213700
10°	203140	221537	205691
15°	202424	230555	204761
20°	199771	234846	203520
25°	193798	228229	197966
30°	179278	212109	185960
35°	157289	186463	166496
40°	131070	146178	139603
45°	110330	96435	117803
50°	95518	52859	101395
55°	86434	28083	88618
60°	79515	14601	79515
65°	72061	7734	70255
70°	58141	4406	53715
75°	39852	2924	36954
80°	26074	1465	23219
85°	17292	2919	14372



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.1	5.4
10°-20°	899.6	15.6
20°-30°	1329.2	23.0
30°-40°	1342.6	23.2
40°-50°	925.4	16.0
50°-60°	531.5	9.2
60°-70°	309.3	5.4
70°-80°	112.9	2.0
80°-90°	17.3	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°	2539.9	44.0
0°-40°	3882.5	67.2
0°-60°	5339.3	92.4
0°-90°	5778.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5778.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3336	3336	3336	3336	3336	
5°	3224	3286	3332	3302	3263	302
15°	2997	3155	3414	3190	3032	844
25°	2692	2850	3170	2908	2750	1227
35°	1975	2110	2341	2206	2090	1226
45°	1196	1211	1045	1288	1277	930
55°	760	667	247	694	779	684
65°	467	393	50	390	455	457
75°	158	127	12	123	147	178
85°	23	12	4	15	19	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°	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4
2.5°	3293.9	3297.8	3301.6	3297.8	3301.6	3317.1	3305.5	3313.2	3313.2	3317.1	3328.6
5°	3224.5	3224.5	3232.2	3228.4	3239.9	3255.4	3243.8	3255.4	3259.2	3266.9	3286.2
7.5°	3135.8	3135.8	3139.6	3139.6	3155.1	3170.5	3162.8	3178.2	3193.6	3209.1	3232.2
10°	3066.4	3074.1	3074.1	3077.9	3093.4	3112.6	3108.8	3128.1	3143.5	3166.6	3197.5
12.5°	3035.5	3039.4	3039.4	3047.1	3062.5	3081.8	3077.9	3097.2	3120.4	3147.4	3178.2
15°	2997.0	3004.6	3000.8	3008.5	3024.0	3043.2	3039.4	3058.6	3085.6	3112.6	3155.1
17.5°	2946.8	2950.6	2954.5	2954.5	2970.0	2985.4	2985.4	3004.6	3035.5	3066.4	3112.6
20°	2877.4	2885.1	2885.1	2889.0	2900.5	2923.6	2919.8	2939.1	2970.0	3000.8	3051.0
22.5°	2796.4	2800.2	2800.2	2804.1	2823.4	2835.0	2838.8	2854.2	2881.2	2916.0	2962.2
25°	2692.2	2696.1	2692.2	2703.8	2711.5	2734.6	2727.0	2746.2	2777.1	2804.1	2850.4
27.5°	2541.8	2549.5	2549.5	2553.4	2572.6	2592.0	2592.0	2611.2	2638.2	2657.5	2703.8
30°	2379.8	2391.4	2379.8	2399.1	2406.8	2422.2	2433.8	2445.4	2468.5	2495.5	2538.0
32.5°	2194.6	2190.8	2194.6	2202.4	2225.5	2237.1	2244.8	2256.4	2279.5	2302.6	2337.4
35°	1974.9	1982.5	1986.4	2001.9	2001.9	2021.1	2025.0	2032.6	2067.4	2082.9	2109.9
37.5°	1743.4	1751.1	1755.0	1762.6	1778.1	1785.9	1797.4	1809.0	1832.1	1859.1	1874.5
40°	1539.0	1539.0	1542.9	1550.5	1562.1	1566.0	1577.5	1593.0	1608.4	1631.5	1647.0
42.5°	1346.1	1350.0	1346.1	1353.9	1365.4	1380.9	1377.0	1396.2	1400.1	1415.5	1427.1
45°	1195.8	1195.8	1188.0	1195.8	1195.8	1211.1	1207.2	1215.0	1211.1	1218.9	1211.1
47.5°	1053.0	1056.9	1053.0	1056.9	1056.9	1056.9	1060.8	1053.0	1056.9	1045.2	1022.1
50°	941.1	945.0	937.2	941.1	937.2	933.4	937.2	925.8	921.9	906.4	883.2
52.5°	844.8	840.9	837.0	837.0	837.0	833.1	829.2	817.8	806.1	790.8	763.8
55°	759.9	756.0	752.1	752.1	744.4	740.5	740.5	729.0	717.4	698.1	667.2
57.5°	682.8	678.9	675.0	675.0	671.1	663.4	663.4	651.9	636.4	613.2	586.2
60°	609.4	609.4	609.4	605.5	605.5	597.9	597.9	586.2	570.9	547.8	516.9
62.5°	543.9	540.0	540.0	540.0	540.0	536.1	532.2	524.5	509.1	486.0	459.0
65°	466.8	466.8	466.8	466.8	462.9	462.9	462.9	451.2	443.5	420.4	393.4
67.5°	381.9	381.9	381.9	381.9	378.0	381.9	381.9	374.1	366.4	343.2	320.1
70°	304.8	300.9	297.0	300.9	297.0	297.0	300.9	293.1	289.2	270.0	246.9
72.5°	223.8	227.6	223.8	223.8	223.8	219.9	223.8	219.9	212.1	196.8	181.2
75°	158.1	162.0	162.0	158.1	158.1	158.1	154.2	154.2	146.6	135.0	127.2
77.5°	108.0	108.0	108.0	108.0	104.1	104.1	104.1	100.2	96.4	88.8	81.0
80°	69.4	69.4	69.4	69.4	65.6	65.6	65.6	61.8	61.8	54.0	46.2
82.5°	42.4	42.4	42.4	42.4	42.4	42.4	38.6	38.6	34.8	30.9	27.0
85°	23.1	23.1	23.1	23.1	23.1	23.1	23.1	19.2	19.2	15.4	11.6
87.5°	7.8	7.8	11.6	11.6	11.6	11.6	11.6	11.6	7.8	7.8	7.8
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°	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4
2.5°	3320.9	3324.8	3324.8	3324.8	3336.4	3340.2	3328.6	3317.1	3340.2	3336.4	3344.1
5°	3282.4	3293.9	3301.6	3305.5	3317.1	3324.8	3313.2	3309.4	3328.6	3332.5	3336.4
7.5°	3236.1	3255.4	3274.6	3282.4	3297.8	3305.5	3301.6	3301.6	3324.8	3332.5	3332.5
10°	3205.2	3232.2	3255.4	3274.6	3293.9	3305.5	3305.5	3309.4	3336.4	3344.1	3351.8
12.5°	3197.5	3232.2	3263.1	3290.1	3305.5	3324.8	3328.6	3340.2	3367.2	3378.8	3378.8
15°	3178.2	3224.5	3263.1	3297.8	3320.9	3344.1	3351.8	3374.9	3405.8	3413.5	3421.2
17.5°	3143.5	3189.8	3236.1	3278.5	3309.4	3328.6	3351.8	3374.9	3413.5	3425.1	3428.9
20°	3081.8	3135.8	3182.1	3224.5	3255.4	3282.4	3305.5	3332.5	3367.2	3382.6	3386.5
22.5°	2989.2	3043.2	3089.5	3135.8	3166.6	3189.8	3212.9	3243.8	3278.5	3293.9	3293.9
25°	2877.4	2927.5	2977.6	3012.4	3043.2	3070.2	3081.8	3116.5	3151.2	3170.5	3170.5
27.5°	2734.6	2781.0	2827.2	2865.8	2885.1	2908.2	2927.5	2958.4	2985.4	3000.8	3016.2
30°	2553.4	2599.6	2642.1	2680.6	2703.8	2727.0	2746.2	2769.4	2796.4	2815.6	2819.5
32.5°	2356.6	2395.2	2437.6	2476.2	2499.4	2507.1	2526.4	2549.5	2572.6	2588.1	2592.0
35°	2140.6	2167.6	2194.6	2229.4	2252.5	2252.5	2271.8	2287.2	2306.5	2341.2	2333.5
37.5°	1886.1	1924.6	1944.0	1955.5	1971.0	1986.4	1990.2	2009.5	2032.6	2040.4	2052.0
40°	1647.0	1658.5	1670.1	1670.1	1685.5	1685.5	1685.5	1689.4	1712.5	1716.4	1731.9
42.5°	1407.9	1407.9	1396.2	1384.6	1388.5	1384.6	1365.4	1365.4	1377.0	1392.4	1392.4
45°	1184.1	1157.1	1122.4	1095.4	1076.1	1068.4	1045.2	1045.2	1041.4	1045.2	1060.8
47.5°	995.1	948.9	891.0	837.0	817.8	802.2	767.5	752.1	744.4	748.2	756.0
50°	837.0	786.9	721.2	655.8	621.0	601.8	559.2	532.2	528.4	520.8	536.1
52.5°	721.2	659.5	590.1	513.0	478.2	447.4	401.1	378.0	362.6	362.6	366.4
55°	621.0	555.4	478.2	401.1	366.4	343.2	297.0	266.1	250.8	246.9	258.4
57.5°	536.1	474.4	397.2	320.1	285.4	258.4	212.1	185.1	173.6	165.9	169.8
60°	470.5	408.9	331.8	258.4	227.6	196.8	158.1	127.2	111.9	111.9	115.8
62.5°	408.9	351.0	281.6	212.1	185.1	158.1	115.8	88.8	77.1	73.2	77.1
65°	347.1	293.1	235.2	177.4	150.4	127.2	92.6	69.4	54.0	50.1	54.0
67.5°	281.6	239.1	189.0	142.8	119.6	100.2	69.4	50.1	38.6	34.8	38.6
70°	219.9	181.2	142.8	104.1	88.8	73.2	50.1	38.6	27.0	23.1	27.0
72.5°	158.1	131.1	100.2	73.2	61.8	50.1	34.8	27.0	19.2	15.4	19.2
75°	108.0	88.8	65.6	46.2	38.6	34.8	23.1	15.4	11.6	11.6	11.6
77.5°	69.4	54.0	42.4	30.9	23.1	19.2	11.6	7.8	7.8	7.8	7.8
80°	38.6	30.9	23.1	15.4	11.6	11.6	7.8	7.8	3.9	3.9	3.9
82.5°	23.1	15.4	11.6	7.8	7.8	3.9	3.9	3.9	3.9	3.9	3.9
85°	11.6	7.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
87.5°	3.9	3.9	3.9	3.9	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4
2.5°	3328.6	3332.5	3320.9	3336.4	3324.8	3340.2	3340.2	3324.8	3328.6	3320.9	3336.4
5°	3320.9	3320.9	3313.2	3324.8	3309.4	3324.8	3320.9	3293.9	3301.6	3286.2	3301.6
7.5°	3320.9	3313.2	3301.6	3313.2	3293.9	3305.5	3290.1	3263.1	3255.4	3236.1	3236.1
10°	3332.5	3320.9	3305.5	3309.4	3290.1	3293.9	3270.8	3232.2	3220.6	3197.5	3189.8
12.5°	3359.5	3347.9	3324.8	3332.5	3305.5	3305.5	3274.6	3228.4	3205.2	3174.4	3166.6
15°	3398.1	3378.8	3351.8	3355.6	3328.6	3313.2	3274.6	3220.6	3189.8	3147.4	3135.8
17.5°	3405.8	3386.5	3351.8	3351.8	3317.1	3297.8	3251.5	3189.8	3151.2	3108.8	3085.6
20°	3363.4	3344.1	3305.5	3301.6	3270.8	3243.8	3193.6	3131.9	3093.4	3047.1	3027.8
22.5°	3274.6	3251.5	3216.8	3212.9	3182.1	3166.6	3112.6	3051.0	3012.4	2966.1	2950.6
25°	3143.5	3131.9	3097.2	3093.4	3066.4	3047.1	3000.8	2943.0	2908.2	2862.0	2846.5
27.5°	2989.2	2977.6	2943.0	2943.0	2912.1	2900.5	2858.1	2804.1	2777.1	2734.6	2715.4
30°	2804.1	2788.6	2769.4	2765.5	2738.5	2727.0	2688.4	2638.2	2611.2	2576.5	2568.8
32.5°	2584.2	2572.6	2561.1	2557.2	2530.2	2518.6	2491.6	2441.5	2418.4	2387.5	2376.0
35°	2329.6	2322.0	2310.4	2306.5	2295.0	2283.4	2256.4	2217.8	2206.2	2183.1	2171.5
37.5°	2036.5	2044.2	2036.5	2036.5	2025.0	2028.9	2005.6	1982.5	1971.0	1955.5	1947.9
40°	1720.2	1735.6	1747.2	1747.2	1743.4	1758.9	1755.0	1735.6	1731.9	1724.1	1720.2
42.5°	1400.1	1407.9	1431.0	1446.4	1442.5	1481.1	1485.0	1500.4	1512.0	1504.2	1508.1
45°	1064.5	1087.8	1118.5	1134.0	1153.2	1203.4	1230.4	1261.2	1288.2	1303.8	1299.9
47.5°	767.5	794.5	829.2	852.4	887.1	948.9	1018.2	1056.9	1095.4	1114.8	1134.0
50°	555.4	582.4	624.9	659.5	682.8	767.5	840.9	891.0	933.4	960.4	979.8
52.5°	389.6	420.4	466.8	497.5	532.2	613.2	698.1	756.0	802.2	837.0	856.2
55°	270.0	304.8	347.1	378.0	416.6	501.4	582.4	644.1	694.2	725.1	748.2
57.5°	189.0	219.9	262.2	289.2	327.9	408.9	489.9	551.5	601.8	632.5	659.5
60°	127.2	158.1	200.6	227.6	258.4	339.4	412.8	478.2	524.5	555.4	582.4
62.5°	88.8	115.8	158.1	185.1	212.1	281.6	351.0	408.9	455.1	489.9	513.0
65°	69.4	92.6	127.2	150.4	177.4	235.2	293.1	343.2	389.6	424.2	439.8
67.5°	50.1	73.2	100.2	119.6	138.9	189.0	239.1	277.8	320.1	347.1	366.4
70°	34.8	50.1	73.2	88.8	104.1	142.8	181.2	216.0	246.9	266.1	281.6
72.5°	27.0	34.8	50.1	61.8	73.2	100.2	131.1	158.1	181.2	196.8	212.1
75°	15.4	23.1	34.8	42.4	50.1	69.4	88.8	108.0	123.4	135.0	142.8
77.5°	7.8	11.6	19.2	23.1	30.9	42.4	57.9	69.4	81.0	88.8	96.4
80°	7.8	7.8	11.6	11.6	15.4	23.1	30.9	38.6	46.2	54.0	57.9
82.5°	3.9	3.9	7.8	7.8	7.8	11.6	15.4	23.1	27.0	30.9	34.8
85°	3.9	3.9	3.9	3.9	3.9	7.8	7.8	11.6	15.4	19.2	19.2
87.5°	0.0	0.0	3.9	3.9	3.9	3.9	3.9	7.8	7.8	7.8	11.6
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: P252618

CATALOG NUMBER: LE_6B50D010R EC6B30509040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4	3336.4
2.5°	3324.8	3332.5	3328.6	3336.4	3324.8	3320.9	3328.6	3317.1
5°	3282.4	3286.2	3282.4	3282.4	3274.6	3266.9	3274.6	3263.1
7.5°	3216.8	3216.8	3205.2	3205.2	3189.8	3182.1	3182.1	3178.2
10°	3162.8	3151.2	3139.6	3143.5	3120.4	3112.6	3108.8	3104.9
12.5°	3135.8	3128.1	3108.8	3108.8	3085.6	3077.9	3074.1	3070.2
15°	3104.9	3089.5	3074.1	3070.2	3051.0	3043.2	3039.4	3031.6
17.5°	3051.0	3039.4	3020.1	3020.1	3000.8	2997.0	2989.2	2985.4
20°	2993.1	2977.6	2962.2	2962.2	2939.1	2939.1	2927.5	2931.4
22.5°	2912.1	2900.5	2885.1	2885.1	2865.8	2862.0	2850.4	2846.5
25°	2815.6	2800.2	2788.6	2784.8	2769.4	2761.6	2757.8	2750.1
27.5°	2688.4	2676.8	2665.2	2657.5	2638.2	2634.4	2622.8	2626.6
30°	2530.2	2522.5	2518.6	2511.0	2487.8	2480.1	2480.1	2468.5
32.5°	2356.6	2345.1	2337.4	2325.8	2306.5	2302.6	2291.1	2295.0
35°	2144.5	2129.1	2117.5	2121.4	2098.2	2094.4	2086.6	2090.5
37.5°	1924.6	1909.2	1893.9	1890.0	1870.6	1870.6	1859.1	1859.1
40°	1697.1	1681.6	1674.0	1674.0	1650.9	1654.6	1643.1	1639.2
42.5°	1492.6	1477.2	1473.4	1469.5	1458.0	1454.1	1442.5	1446.4
45°	1299.9	1296.0	1296.0	1288.2	1276.8	1272.9	1276.8	1276.8
47.5°	1130.1	1134.0	1130.1	1130.1	1122.4	1130.1	1122.4	1126.2
50°	987.4	995.1	995.1	995.1	991.2	995.1	995.1	999.0
52.5°	867.9	879.4	875.5	879.4	875.5	883.2	879.4	883.2
55°	763.8	771.4	775.2	779.1	779.1	779.1	779.1	779.1
57.5°	667.2	678.9	682.8	686.5	686.5	694.2	686.5	686.5
60°	590.1	601.8	605.5	609.4	609.4	613.2	605.5	609.4
62.5°	520.8	532.2	532.2	536.1	536.1	536.1	528.4	532.2
65°	451.2	455.1	459.0	459.0	455.1	455.1	451.2	455.1
67.5°	374.1	378.0	374.1	374.1	370.2	370.2	362.6	366.4
70°	289.2	289.2	293.1	289.2	285.4	289.2	285.4	281.6
72.5°	216.0	216.0	216.0	212.1	212.1	208.2	212.1	212.1
75°	146.6	146.6	150.4	150.4	150.4	150.4	146.6	146.6
77.5°	96.4	96.4	96.4	96.4	100.2	96.4	96.4	96.4
80°	61.8	61.8	65.6	65.6	61.8	61.8	61.8	61.8
82.5°	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
85°	23.1	23.1	23.1	23.1	19.2	19.2	19.2	19.2
87.5°	11.6	11.6	11.6	11.6	11.6	11.6	7.8	7.8
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)