

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: P252317

Luminaire Tested: **LE_6B60D010R EC6B60709030 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252317
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_6B60D010R EC6B60709030 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: 5892.5 lumens
Efficiency: N/A
Efficacy: 94.3 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

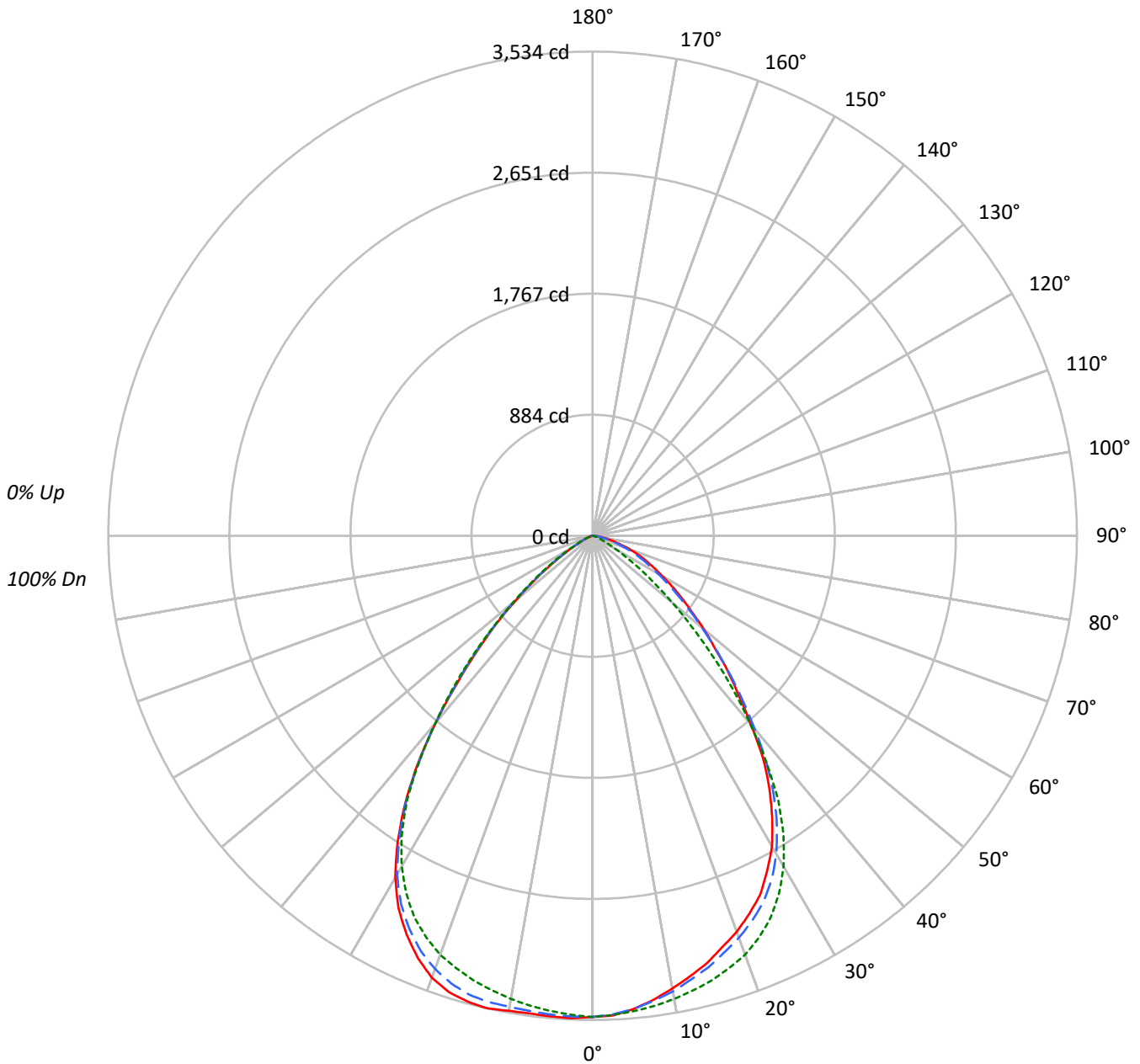
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	229138	229138	229138
5°	226962	228075	230577
10°	222285	227347	233243
15°	218033	226914	237802
20°	213518	225883	238262
25°	208253	221383	231151
30°	197163	209947	216975
35°	179056	188183	189872
40°	152821	152097	151373
45°	128376	113891	110366
50°	107200	77056	73189
55°	90221	47295	42938
60°	76384	24909	21582
65°	66133	13106	10482
70°	55032	8088	5684
75°	40634	5344	3227
80°	31897	3193	1578
85°	25376	3144	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.0	5.6
10°-20°	947.8	16.1
20°-30°	1399.6	23.8
30°-40°	1442.4	24.5
40°-50°	996.2	16.9
50°-60°	491.0	8.3
60°-70°	199.0	3.4
70°-80°	70.9	1.2
80°-90°	14.6	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°	2678.4	45.5
0°-40°	4120.7	69.9
0°-60°	5608.0	95.2
0°-90°	5892.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5892.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3512	3512	3512	3512	3512	
5°	3466	3466	3483	3508	3521	327
15°	3228	3262	3360	3470	3521	909
25°	2893	2948	3075	3164	3211	1323
35°	2248	2303	2363	2376	2384	1393
45°	1391	1400	1234	1217	1196	1076
55°	793	764	416	390	378	717
65°	428	386	85	68	68	426
75°	161	136	21	13	13	181
85°	34	26	4	0	0	42
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°	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2
2.5°	3503.8	3491.1	3499.6	3482.6	3503.8	3482.6	3486.9	3491.1	3486.9	3491.1	3495.4
5°	3465.6	3452.9	3465.6	3444.4	3465.6	3452.9	3452.9	3457.1	3457.1	3461.4	3465.6
7.5°	3414.8	3402.0	3414.8	3393.5	3419.0	3406.2	3406.2	3414.8	3410.5	3414.8	3423.2
10°	3355.4	3338.4	3351.1	3338.4	3363.9	3346.9	3355.4	3355.4	3355.4	3368.1	3376.5
12.5°	3291.8	3274.8	3291.8	3270.5	3296.0	3283.2	3287.5	3300.2	3304.5	3312.9	3317.1
15°	3228.1	3206.9	3215.4	3202.6	3228.1	3215.4	3219.6	3236.6	3236.6	3249.2	3262.0
17.5°	3147.5	3130.5	3147.5	3130.5	3151.8	3143.2	3151.8	3164.5	3164.5	3177.1	3189.9
20°	3075.4	3058.4	3071.1	3058.4	3083.9	3071.1	3075.4	3092.4	3096.6	3109.2	3122.0
22.5°	2986.2	2973.6	2982.0	2969.4	2994.8	2986.2	2990.5	3007.5	3011.8	3020.2	3041.5
25°	2893.0	2867.5	2880.2	2871.8	2897.2	2884.5	2893.0	2910.0	2918.4	2931.1	2948.1
27.5°	2757.2	2744.5	2753.0	2753.0	2774.2	2761.5	2765.8	2782.6	2795.4	2808.1	2829.4
30°	2617.2	2596.0	2604.5	2608.8	2625.8	2617.2	2625.8	2642.8	2647.0	2663.9	2680.9
32.5°	2439.1	2430.6	2447.6	2439.1	2447.6	2447.6	2451.9	2464.5	2473.0	2481.5	2502.8
35°	2248.2	2231.2	2248.2	2239.8	2260.9	2248.2	2260.9	2273.6	2273.6	2290.6	2303.4
37.5°	2040.4	2019.1	2027.6	2027.6	2036.1	2031.9	2031.9	2053.1	2057.4	2070.0	2082.8
40°	1794.4	1785.9	1802.8	1798.6	1802.8	1802.8	1807.0	1819.8	1828.2	1832.5	1836.8
42.5°	1573.8	1578.0	1582.2	1582.2	1582.2	1582.2	1582.2	1599.2	1595.0	1607.6	1611.9
45°	1391.4	1374.4	1382.9	1378.6	1391.4	1378.6	1391.4	1404.1	1395.6	1408.2	1399.9
47.5°	1204.8	1204.8	1204.8	1200.5	1209.0	1204.8	1213.1	1217.4	1217.4	1217.4	1213.1
50°	1056.2	1043.5	1047.8	1047.8	1052.0	1047.8	1056.2	1060.5	1060.5	1052.0	1035.0
52.5°	912.0	907.8	907.8	916.2	916.2	912.0	912.0	912.0	912.0	899.2	890.8
55°	793.2	784.8	789.0	789.0	789.0	789.0	793.2	789.0	789.0	776.2	763.5
57.5°	687.2	678.8	678.8	678.8	683.0	678.8	678.8	678.8	674.5	661.8	644.8
60°	585.4	581.1	585.4	585.4	589.6	585.4	585.4	585.4	576.9	564.1	547.2
62.5°	500.5	500.5	500.5	504.8	504.8	500.5	500.5	496.2	492.0	475.1	458.1
65°	428.4	424.2	428.4	428.4	432.6	432.6	428.4	424.2	420.0	403.0	386.0
67.5°	356.4	352.1	356.4	356.4	360.5	356.4	356.4	356.4	343.6	335.1	318.1
70°	288.5	284.2	284.2	284.2	288.5	280.0	284.2	284.2	275.8	263.0	246.0
72.5°	220.6	220.6	220.6	220.6	220.6	220.6	216.4	216.4	207.9	195.1	186.6
75°	161.2	161.2	165.4	165.4	161.2	161.2	161.2	157.0	152.8	144.2	135.8
77.5°	118.8	118.8	118.8	118.8	114.5	114.5	114.5	110.2	106.0	101.8	93.4
80°	84.9	84.9	84.9	80.6	84.9	80.6	80.6	80.6	72.1	67.9	63.6
82.5°	59.4	55.1	55.1	55.1	55.1	55.1	55.1	50.9	50.9	46.6	42.4
85°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	29.8	25.5	25.5
87.5°	17.0	21.2	21.2	21.2	21.2	21.2	21.2	17.0	17.0	17.0	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°	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2
2.5°	3495.4	3495.4	3503.8	3491.1	3512.2	3499.6	3495.4	3516.5	3503.8	3499.6	3508.0
5°	3465.6	3469.9	3474.1	3465.6	3486.9	3474.1	3474.1	3495.4	3486.9	3482.6	3495.4
7.5°	3427.5	3431.8	3440.1	3436.0	3452.9	3444.4	3448.6	3469.9	3461.4	3461.4	3474.1
10°	3380.8	3389.2	3397.8	3397.8	3419.0	3410.5	3410.5	3436.0	3427.5	3431.8	3448.6
12.5°	3325.6	3338.4	3351.1	3355.4	3376.5	3363.9	3368.1	3397.8	3393.5	3397.8	3414.8
15°	3266.2	3283.2	3296.0	3296.0	3321.4	3308.6	3321.4	3351.1	3342.6	3359.6	3380.8
17.5°	3198.4	3215.4	3232.4	3236.6	3262.0	3253.5	3270.5	3300.2	3300.2	3308.6	3334.1
20°	3134.8	3156.0	3164.5	3177.1	3202.6	3198.4	3206.9	3240.8	3240.8	3253.5	3279.0
22.5°	3049.9	3071.1	3088.1	3100.9	3122.0	3122.0	3134.8	3164.5	3164.5	3173.0	3198.4
25°	2956.6	2982.0	2994.8	3007.5	3028.8	3024.5	3037.2	3062.6	3066.9	3075.4	3100.9
27.5°	2837.9	2859.0	2876.0	2884.5	2914.1	2897.2	2910.0	2939.6	2935.4	2943.9	2965.1
30°	2689.4	2710.6	2727.5	2727.5	2753.0	2753.0	2765.8	2778.5	2778.5	2786.9	2803.9
32.5°	2515.5	2540.9	2540.9	2553.6	2570.6	2553.6	2570.6	2587.5	2579.1	2591.8	2604.5
35°	2316.1	2328.8	2333.0	2333.0	2345.8	2341.5	2337.2	2350.0	2341.5	2362.8	2375.5
37.5°	2074.2	2091.2	2082.8	2091.2	2087.0	2074.2	2074.2	2095.5	2078.5	2082.8	2095.5
40°	1841.0	1841.0	1836.8	1815.5	1819.8	1807.0	1802.8	1807.0	1790.1	1785.9	1802.8
42.5°	1599.2	1595.0	1582.2	1552.5	1556.8	1535.6	1518.6	1518.6	1510.1	1505.9	1510.1
45°	1382.9	1370.1	1348.9	1315.0	1306.5	1289.5	1255.6	1247.1	1234.4	1234.4	1238.6
47.5°	1183.5	1166.5	1132.6	1094.4	1073.2	1052.0	1018.0	1005.4	984.1	975.6	984.1
50°	1018.0	988.4	946.0	890.8	869.6	844.1	810.2	789.0	767.8	759.2	755.0
52.5°	865.4	822.9	780.5	712.6	695.6	670.2	623.5	602.4	581.1	564.1	564.1
55°	733.9	695.6	636.2	572.6	547.2	521.8	475.1	445.4	424.2	415.8	407.2
57.5°	615.1	572.6	517.5	449.6	424.2	398.8	352.1	322.4	301.1	288.5	280.0
60°	517.5	470.9	415.8	356.4	326.6	301.1	254.5	224.9	203.6	190.9	182.4
62.5°	424.2	386.0	330.9	275.8	250.2	224.9	186.6	157.0	135.8	127.2	114.5
65°	356.4	318.1	267.2	220.6	199.4	173.9	140.0	114.5	97.6	84.9	76.4
67.5°	288.5	258.8	216.4	173.9	152.8	135.8	106.0	84.9	67.9	59.4	55.1
70°	229.1	199.4	165.4	131.5	118.8	101.8	80.6	59.4	50.9	42.4	38.1
72.5°	169.6	148.5	123.0	97.6	84.9	76.4	55.1	46.6	33.9	29.8	25.5
75°	123.0	106.0	89.1	67.9	59.4	55.1	42.4	29.8	25.5	21.2	17.0
77.5°	84.9	76.4	59.4	46.6	42.4	38.1	29.8	21.2	17.0	12.8	12.8
80°	55.1	46.6	38.1	29.8	29.8	25.5	17.0	12.8	12.8	8.5	8.5
82.5°	33.9	29.8	25.5	21.2	17.0	17.0	12.8	8.5	8.5	4.2	4.2
85°	21.2	17.0	12.8	12.8	8.5	8.5	8.5	4.2	4.2	4.2	4.2
87.5°	8.5	8.5	8.5	4.2	4.2	4.2	4.2	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°	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2
2.5°	3508.0	3508.0	3516.5	3503.8	3512.2	3512.2	3520.8	3503.8	3512.2	3516.5	3525.0
5°	3491.1	3495.4	3503.8	3499.6	3503.8	3503.8	3512.2	3491.1	3508.0	3508.0	3520.8
7.5°	3474.1	3474.1	3482.6	3478.4	3486.9	3491.1	3499.6	3482.6	3499.6	3499.6	3512.2
10°	3452.9	3452.9	3465.6	3461.4	3474.1	3478.4	3491.1	3474.1	3491.1	3495.4	3508.0
12.5°	3423.2	3427.5	3440.1	3440.1	3452.9	3461.4	3474.1	3465.6	3486.9	3491.1	3508.0
15°	3389.2	3397.8	3414.8	3410.5	3423.2	3436.0	3452.9	3440.1	3469.9	3478.4	3495.4
17.5°	3346.9	3355.4	3368.1	3368.1	3380.8	3389.2	3410.5	3402.0	3427.5	3431.8	3452.9
20°	3283.2	3296.0	3312.9	3308.6	3321.4	3329.9	3346.9	3338.4	3363.9	3372.2	3393.5
22.5°	3206.9	3215.4	3228.1	3228.1	3240.8	3249.2	3266.2	3253.5	3279.0	3283.2	3300.2
25°	3105.1	3113.5	3122.0	3126.2	3139.0	3143.2	3151.8	3143.2	3164.5	3168.8	3189.9
27.5°	2973.6	2977.9	2990.5	2990.5	2999.0	3003.2	3016.0	2999.0	3028.8	3028.8	3041.5
30°	2816.6	2812.4	2829.4	2820.9	2829.4	2829.4	2842.1	2833.6	2854.8	2846.4	2859.0
32.5°	2608.8	2617.2	2617.2	2608.8	2625.8	2621.5	2621.5	2613.0	2625.8	2630.0	2638.5
35°	2367.0	2379.8	2379.8	2384.0	2388.2	2375.5	2379.8	2354.2	2375.5	2379.8	2384.0
37.5°	2104.0	2091.2	2099.8	2087.0	2108.2	2082.8	2082.8	2065.8	2082.8	2082.8	2087.0
40°	1802.8	1798.6	1807.0	1798.6	1794.4	1790.1	1781.6	1768.9	1785.9	1777.4	1790.1
42.5°	1518.6	1514.4	1514.4	1505.9	1501.6	1501.6	1493.1	1484.6	1480.4	1480.4	1501.6
45°	1225.9	1234.4	1225.9	1221.6	1230.1	1221.6	1225.9	1209.0	1217.4	1209.0	1217.4
47.5°	979.9	984.1	975.6	967.1	979.9	967.1	967.1	954.4	971.4	971.4	962.9
50°	759.2	755.0	746.6	755.0	750.9	750.9	750.9	738.1	746.6	733.9	742.4
52.5°	559.9	555.8	555.8	551.5	555.8	551.5	551.5	547.2	547.2	543.0	547.2
55°	407.2	403.0	394.5	394.5	394.5	398.8	394.5	390.2	390.2	386.0	390.2
57.5°	275.8	267.2	267.2	267.2	267.2	263.0	263.0	258.8	263.0	258.8	263.0
60°	178.1	178.1	169.6	169.6	169.6	169.6	169.6	165.4	169.6	169.6	169.6
62.5°	110.2	110.2	106.0	101.8	106.0	101.8	101.8	101.8	106.0	101.8	106.0
65°	72.1	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
67.5°	50.9	46.6	46.6	46.6	46.6	46.6	46.6	42.4	46.6	46.6	46.6
70°	33.9	33.9	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8
72.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
75°	17.0	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
77.5°	12.8	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
80°	8.5	8.5	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
85°	4.2	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	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
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: P252317

CATALOG NUMBER: LE_6B60D010R EC6B60709030 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2	3512.2
2.5°	3512.2	3516.5	3508.0	3512.2	3503.8	3512.2	3516.5	3525.0
5°	3503.8	3508.0	3499.6	3508.0	3499.6	3508.0	3512.2	3520.8
7.5°	3495.4	3503.8	3495.4	3503.8	3495.4	3503.8	3508.0	3516.5
10°	3495.4	3508.0	3499.6	3512.2	3499.6	3508.0	3516.5	3520.8
12.5°	3495.4	3508.0	3503.8	3512.2	3508.0	3516.5	3525.0	3533.5
15°	3486.9	3499.6	3491.1	3503.8	3499.6	3503.8	3520.8	3520.8
17.5°	3440.1	3452.9	3452.9	3461.4	3461.4	3474.1	3482.6	3491.1
20°	3380.8	3393.5	3389.2	3402.0	3402.0	3414.8	3423.2	3431.8
22.5°	3291.8	3308.6	3304.5	3317.1	3312.9	3321.4	3338.4	3334.1
25°	3177.1	3198.4	3194.1	3202.6	3198.4	3198.4	3206.9	3211.1
27.5°	3037.2	3049.9	3045.6	3054.1	3045.6	3054.1	3062.6	3066.9
30°	2854.8	2863.2	2859.0	2863.2	2859.0	2867.5	2871.8	2880.2
32.5°	2634.2	2647.0	2634.2	2642.8	2638.5	2638.5	2655.4	2647.0
35°	2371.2	2375.5	2379.8	2379.8	2371.2	2375.5	2384.0	2384.0
37.5°	2078.5	2099.8	2074.2	2087.0	2082.8	2082.8	2082.8	2095.5
40°	1773.1	1777.4	1768.9	1768.9	1768.9	1764.6	1781.6	1777.4
42.5°	1484.6	1488.9	1484.6	1472.0	1476.1	1476.1	1488.9	1472.0
45°	1204.8	1213.1	1209.0	1209.0	1200.5	1200.5	1204.8	1196.2
47.5°	954.4	962.9	950.1	954.4	946.0	954.4	950.1	958.6
50°	725.4	733.9	729.6	733.9	733.9	725.4	738.1	721.1
52.5°	543.0	547.2	543.0	538.8	534.5	534.5	543.0	538.8
55°	386.0	381.8	381.8	381.8	386.0	386.0	381.8	377.5
57.5°	258.8	258.8	254.5	254.5	258.8	250.2	254.5	250.2
60°	165.4	165.4	165.4	165.4	161.2	165.4	165.4	165.4
62.5°	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8
65°	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
67.5°	42.4	46.6	46.6	46.6	42.4	42.4	42.4	42.4
70°	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8
72.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
75°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
77.5°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
80°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
82.5°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.2	4.2	4.2	4.2	4.2	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)