

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: P252319

Luminaire Tested: **LE_6B60D010R EC6B60709040 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252319
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 EC6B60709040 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: 5986.2 lumens
Efficiency: N/A
Efficacy: 95.8 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

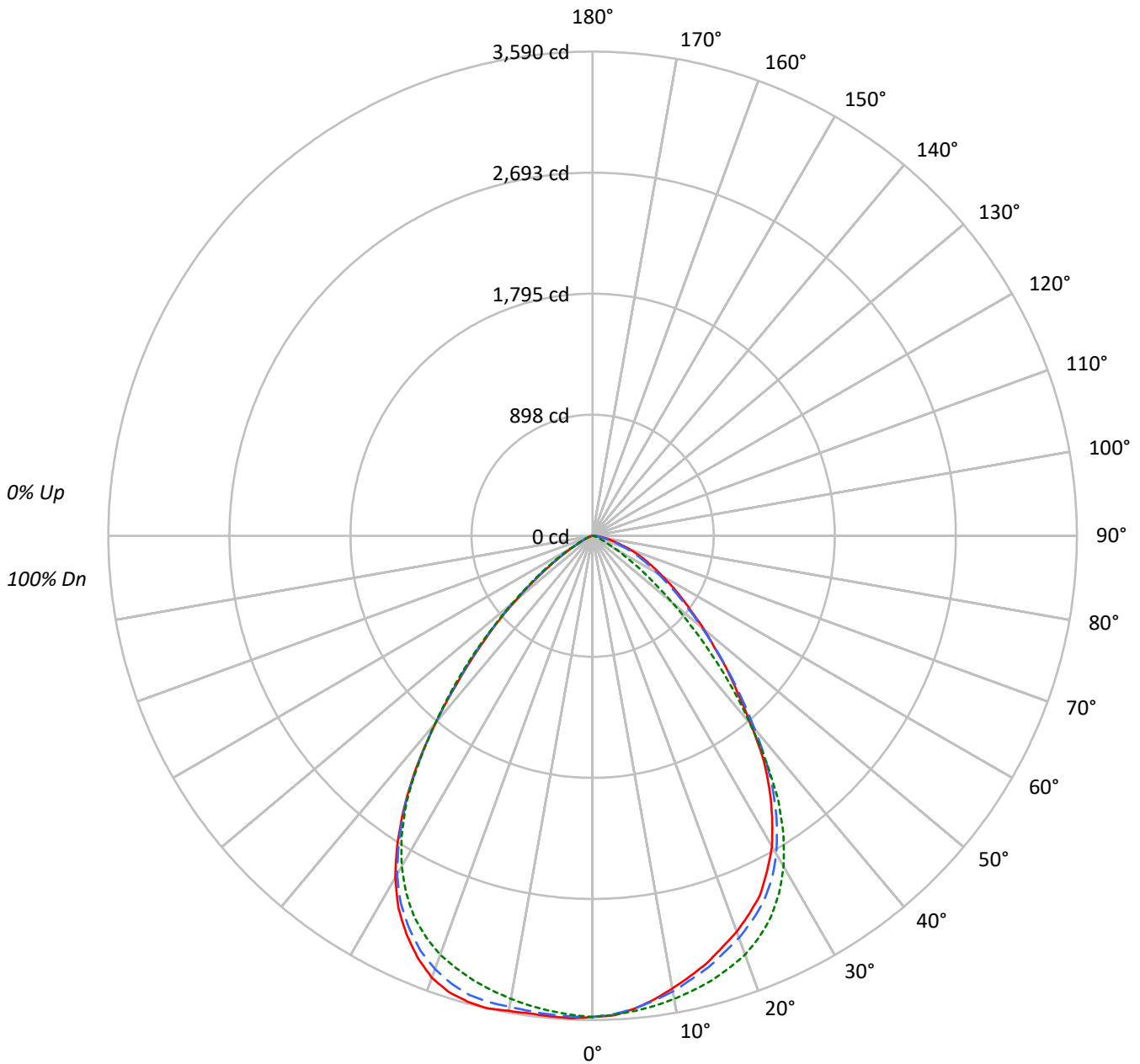
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	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°	232785	232785	232785
5°	230577	231703	234244
10°	225823	230951	236953
15°	221504	230521	241584
20°	216906	229472	242039
25°	211564	224896	234830
30°	200304	213284	220433
35°	181907	191178	192890
40°	155248	154507	153775
45°	130415	115699	112119
50°	108906	78294	74356
55°	91666	48045	43621
60°	77610	25300	21934
65°	67183	13307	10652
70°	55890	8221	5742
75°	41289	5420	3252
80°	32386	3231	1578
85°	25825	3144	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.3	5.6
10°-20°	962.9	16.1
20°-30°	1421.8	23.8
30°-40°	1465.3	24.5
40°-50°	1012.1	16.9
50°-60°	498.9	8.3
60°-70°	202.1	3.4
70°-80°	72.0	1.2
80°-90°	14.8	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°	2721.0	45.5
0°-40°	4186.3	69.9
0°-60°	5697.2	95.2
0°-90°	5986.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5986.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3568	3568	3568	3568	3568	
5°	3521	3521	3538	3564	3577	332
15°	3280	3314	3413	3525	3577	923
25°	2939	2995	3124	3215	3262	1344
35°	2284	2340	2400	2413	2422	1415
45°	1414	1422	1254	1237	1215	1093
55°	806	776	422	396	384	728
65°	435	392	86	69	69	432
75°	164	138	22	13	13	184
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°	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1
2.5°	3559.5	3546.6	3555.2	3538.0	3559.5	3538.0	3542.4	3546.6	3542.4	3546.6	3550.9
5°	3520.8	3507.9	3520.8	3499.2	3520.8	3507.9	3507.9	3512.1	3512.1	3516.5	3520.8
7.5°	3469.0	3456.1	3469.0	3447.5	3473.4	3460.5	3460.5	3469.0	3464.8	3469.0	3477.6
10°	3408.8	3391.5	3404.4	3391.5	3417.4	3400.1	3408.8	3408.8	3408.8	3421.6	3430.2
12.5°	3344.1	3326.9	3344.1	3322.5	3348.4	3335.5	3339.8	3352.8	3357.0	3365.6	3370.0
15°	3279.5	3257.9	3266.5	3253.6	3279.5	3266.5	3270.9	3288.1	3288.1	3301.0	3313.9
17.5°	3197.6	3180.4	3197.6	3180.4	3201.9	3193.2	3201.9	3214.8	3214.8	3227.8	3240.6
20°	3124.2	3107.1	3120.0	3107.1	3132.9	3120.0	3124.2	3141.5	3145.9	3158.8	3171.8
22.5°	3033.8	3020.9	3029.5	3016.6	3042.4	3033.8	3038.1	3055.4	3059.6	3068.2	3089.9
25°	2939.0	2913.1	2926.1	2917.5	2943.2	2930.4	2939.0	2956.2	2964.9	2977.8	2995.0
27.5°	2801.1	2788.1	2796.8	2796.8	2818.4	2805.4	2809.8	2827.0	2839.9	2852.9	2874.4
30°	2658.9	2637.4	2646.0	2650.2	2667.5	2658.9	2667.5	2684.8	2689.0	2706.2	2723.5
32.5°	2477.9	2469.2	2486.5	2477.9	2486.5	2486.5	2490.9	2503.8	2512.4	2521.0	2542.5
35°	2284.0	2266.8	2284.0	2275.4	2296.9	2284.0	2296.9	2309.9	2309.9	2327.1	2340.0
37.5°	2072.9	2051.2	2059.9	2059.9	2068.5	2064.2	2064.2	2085.8	2090.0	2103.0	2115.9
40°	1822.9	1814.2	1831.5	1827.1	1831.5	1831.5	1835.8	1848.8	1857.4	1861.6	1866.0
42.5°	1598.8	1603.1	1607.4	1607.4	1607.4	1607.4	1607.4	1624.6	1620.4	1633.2	1637.6
45°	1413.5	1396.2	1404.9	1400.5	1413.5	1400.5	1413.5	1426.4	1417.8	1430.8	1422.1
47.5°	1223.9	1223.9	1223.9	1219.5	1228.1	1223.9	1232.5	1236.8	1236.8	1236.8	1232.5
50°	1073.0	1060.1	1064.4	1064.4	1068.8	1064.4	1073.0	1077.4	1077.4	1068.8	1051.5
52.5°	926.5	922.2	922.2	930.9	930.9	926.5	926.5	926.5	926.5	913.6	905.0
55°	805.9	797.2	801.5	801.5	801.5	801.5	805.9	801.5	801.5	788.6	775.8
57.5°	698.1	689.5	689.5	689.5	693.8	689.5	689.5	689.5	685.2	672.2	655.0
60°	594.8	590.4	594.8	594.8	599.0	594.8	594.8	594.8	586.1	573.1	555.9
62.5°	508.5	508.5	508.5	512.9	512.9	508.5	508.5	504.2	499.9	482.6	465.4
65°	435.2	431.0	435.2	435.2	439.5	439.5	435.2	431.0	426.6	409.4	392.1
67.5°	362.0	357.6	362.0	362.0	366.2	362.0	362.0	362.0	349.0	340.5	323.2
70°	293.0	288.8	288.8	288.8	293.0	284.4	288.8	288.8	280.1	267.1	250.0
72.5°	224.1	224.1	224.1	224.1	224.1	224.1	219.8	219.8	211.1	198.2	189.6
75°	163.8	163.8	168.1	168.1	163.8	163.8	163.8	159.5	155.1	146.5	137.9
77.5°	120.6	120.6	120.6	120.6	116.4	116.4	116.4	112.0	107.8	103.4	94.8
80°	86.2	86.2	86.2	81.9	86.2	81.9	81.9	81.9	73.2	69.0	64.6
82.5°	60.4	56.0	56.0	56.0	56.0	56.0	56.0	51.8	51.8	47.4	43.1
85°	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	30.1	25.9	25.9
87.5°	17.2	21.5	21.5	21.5	21.5	21.5	21.5	17.2	17.2	17.2	12.9
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°	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1
2.5°	3550.9	3550.9	3559.5	3546.6	3568.1	3555.2	3550.9	3572.5	3559.5	3555.2	3563.9
5°	3520.8	3525.1	3529.4	3520.8	3542.4	3529.4	3529.4	3550.9	3542.4	3538.0	3550.9
7.5°	3482.0	3486.2	3494.9	3490.6	3507.9	3499.2	3503.5	3525.1	3516.5	3516.5	3529.4
10°	3434.6	3443.2	3451.9	3451.9	3473.4	3464.8	3464.8	3490.6	3482.0	3486.2	3503.5
12.5°	3378.5	3391.5	3404.4	3408.8	3430.2	3417.4	3421.6	3451.9	3447.5	3451.9	3469.0
15°	3318.2	3335.5	3348.4	3348.4	3374.2	3361.4	3374.2	3404.4	3395.8	3413.0	3434.6
17.5°	3249.2	3266.5	3283.8	3288.1	3313.9	3305.2	3322.5	3352.8	3352.8	3361.4	3387.1
20°	3184.6	3206.1	3214.8	3227.8	3253.6	3249.2	3257.9	3292.4	3292.4	3305.2	3331.1
22.5°	3098.5	3120.0	3137.2	3150.1	3171.8	3171.8	3184.6	3214.8	3214.8	3223.4	3249.2
25°	3003.6	3029.5	3042.4	3055.4	3076.9	3072.6	3085.5	3111.4	3115.8	3124.2	3150.1
27.5°	2883.0	2904.5	2921.8	2930.4	2960.5	2943.2	2956.2	2986.4	2982.1	2990.8	3012.2
30°	2732.1	2753.8	2770.9	2770.9	2796.8	2796.8	2809.8	2822.6	2822.6	2831.2	2848.5
32.5°	2555.5	2581.4	2581.4	2594.2	2611.5	2594.2	2611.5	2628.8	2620.1	2633.0	2646.0
35°	2352.9	2365.9	2370.1	2370.1	2383.1	2378.8	2374.5	2387.4	2378.8	2400.4	2413.2
37.5°	2107.2	2124.5	2115.9	2124.5	2120.2	2107.2	2107.2	2128.9	2111.6	2115.9	2128.9
40°	1870.2	1870.2	1866.0	1844.4	1848.8	1835.8	1831.5	1835.8	1818.5	1814.2	1831.5
42.5°	1624.6	1620.4	1607.4	1577.2	1581.5	1560.0	1542.8	1542.8	1534.1	1529.9	1534.1
45°	1404.9	1391.9	1370.4	1335.9	1327.2	1310.0	1275.6	1267.0	1254.0	1254.0	1258.4
47.5°	1202.4	1185.1	1150.6	1111.9	1090.2	1068.8	1034.2	1021.4	999.8	991.1	999.8
50°	1034.2	1004.1	961.0	905.0	883.4	857.6	823.1	801.5	780.0	771.4	767.1
52.5°	879.1	836.0	792.9	724.0	706.8	680.9	633.5	611.9	590.4	573.1	573.1
55°	745.5	706.8	646.4	581.8	555.9	530.0	482.6	452.5	431.0	422.4	413.8
57.5°	624.9	581.8	525.8	456.8	431.0	405.1	357.6	327.5	306.0	293.0	284.4
60°	525.8	478.4	422.4	362.0	331.9	306.0	258.6	228.4	206.9	193.9	185.2
62.5°	431.0	392.1	336.1	280.1	254.2	228.4	189.6	159.5	137.9	129.2	116.4
65°	362.0	323.2	271.5	224.1	202.5	176.6	142.2	116.4	99.1	86.2	77.6
67.5°	293.0	262.9	219.8	176.6	155.1	137.9	107.8	86.2	69.0	60.4	56.0
70°	232.8	202.5	168.1	133.6	120.6	103.4	81.9	60.4	51.8	43.1	38.8
72.5°	172.4	150.9	125.0	99.1	86.2	77.6	56.0	47.4	34.5	30.1	25.9
75°	125.0	107.8	90.5	69.0	60.4	56.0	43.1	30.1	25.9	21.5	17.2
77.5°	86.2	77.6	60.4	47.4	43.1	38.8	30.1	21.5	17.2	12.9	12.9
80°	56.0	47.4	38.8	30.1	30.1	25.9	17.2	12.9	12.9	8.6	8.6
82.5°	34.5	30.1	25.9	21.5	17.2	17.2	12.9	8.6	8.6	4.2	4.2
85°	21.5	17.2	12.9	12.9	8.6	8.6	8.6	4.2	4.2	4.2	4.2
87.5°	8.6	8.6	8.6	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°	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1
2.5°	3563.9	3563.9	3572.5	3559.5	3568.1	3568.1	3576.8	3559.5	3568.1	3572.5	3581.1
5°	3546.6	3550.9	3559.5	3555.2	3559.5	3559.5	3568.1	3546.6	3563.9	3563.9	3576.8
7.5°	3529.4	3529.4	3538.0	3533.8	3542.4	3546.6	3555.2	3538.0	3555.2	3555.2	3568.1
10°	3507.9	3507.9	3520.8	3516.5	3529.4	3533.8	3546.6	3529.4	3546.6	3550.9	3563.9
12.5°	3477.6	3482.0	3494.9	3494.9	3507.9	3516.5	3529.4	3520.8	3542.4	3546.6	3563.9
15°	3443.2	3451.9	3469.0	3464.8	3477.6	3490.6	3507.9	3494.9	3525.1	3533.8	3550.9
17.5°	3400.1	3408.8	3421.6	3421.6	3434.6	3443.2	3464.8	3456.1	3482.0	3486.2	3507.9
20°	3335.5	3348.4	3365.6	3361.4	3374.2	3382.9	3400.1	3391.5	3417.4	3426.0	3447.5
22.5°	3257.9	3266.5	3279.5	3279.5	3292.4	3301.0	3318.2	3305.2	3331.1	3335.5	3352.8
25°	3154.5	3163.1	3171.8	3176.0	3189.0	3193.2	3201.9	3193.2	3214.8	3219.1	3240.6
27.5°	3020.9	3025.2	3038.1	3038.1	3046.8	3051.0	3064.0	3046.8	3076.9	3076.9	3089.9
30°	2861.4	2857.1	2874.4	2865.8	2874.4	2874.4	2887.2	2878.6	2900.2	2891.6	2904.5
32.5°	2650.2	2658.9	2658.9	2650.2	2667.5	2663.2	2663.2	2654.6	2667.5	2671.9	2680.5
35°	2404.6	2417.6	2417.6	2421.9	2426.1	2413.2	2417.6	2391.8	2413.2	2417.6	2421.9
37.5°	2137.5	2124.5	2133.1	2120.2	2141.8	2115.9	2115.9	2098.6	2115.9	2115.9	2120.2
40°	1831.5	1827.1	1835.8	1827.1	1822.9	1818.5	1810.0	1797.0	1814.2	1805.6	1818.5
42.5°	1542.8	1538.5	1538.5	1529.9	1525.5	1525.5	1516.9	1508.2	1504.0	1504.0	1525.5
45°	1245.4	1254.0	1245.4	1241.1	1249.8	1241.1	1245.4	1228.1	1236.8	1228.1	1236.8
47.5°	995.5	999.8	991.1	982.5	995.5	982.5	982.5	969.6	986.9	986.9	978.2
50°	771.4	767.1	758.5	767.1	762.8	762.8	762.8	749.9	758.5	745.5	754.1
52.5°	568.9	564.5	564.5	560.2	564.5	560.2	560.2	555.9	555.9	551.6	555.9
55°	413.8	409.4	400.8	400.8	400.8	405.1	400.8	396.5	396.5	392.1	396.5
57.5°	280.1	271.5	271.5	271.5	271.5	267.1	267.1	262.9	267.1	262.9	267.1
60°	181.0	181.0	172.4	172.4	172.4	172.4	172.4	168.1	172.4	172.4	172.4
62.5°	112.0	112.0	107.8	103.4	107.8	103.4	103.4	103.4	107.8	103.4	107.8
65°	73.2	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
67.5°	51.8	47.4	47.4	47.4	47.4	47.4	47.4	43.1	47.4	47.4	47.4
70°	34.5	34.5	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
72.5°	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
75°	17.2	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
77.5°	12.9	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
80°	8.6	8.6	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: P252319

CATALOG NUMBER: LE_6B60D010R EC6B60709040 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1	3568.1
2.5°	3568.1	3572.5	3563.9	3568.1	3559.5	3568.1	3572.5	3581.1
5°	3559.5	3563.9	3555.2	3563.9	3555.2	3563.9	3568.1	3576.8
7.5°	3550.9	3559.5	3550.9	3559.5	3550.9	3559.5	3563.9	3572.5
10°	3550.9	3563.9	3555.2	3568.1	3555.2	3563.9	3572.5	3576.8
12.5°	3550.9	3563.9	3559.5	3568.1	3563.9	3572.5	3581.1	3589.8
15°	3542.4	3555.2	3546.6	3559.5	3555.2	3559.5	3576.8	3576.8
17.5°	3494.9	3507.9	3507.9	3516.5	3516.5	3529.4	3538.0	3546.6
20°	3434.6	3447.5	3443.2	3456.1	3456.1	3469.0	3477.6	3486.2
22.5°	3344.1	3361.4	3357.0	3370.0	3365.6	3374.2	3391.5	3387.1
25°	3227.8	3249.2	3245.0	3253.6	3249.2	3249.2	3257.9	3262.2
27.5°	3085.5	3098.5	3094.1	3102.8	3094.1	3102.8	3111.4	3115.8
30°	2900.2	2908.9	2904.5	2908.9	2904.5	2913.1	2917.5	2926.1
32.5°	2676.1	2689.0	2676.1	2684.8	2680.5	2680.5	2697.6	2689.0
35°	2409.0	2413.2	2417.6	2417.6	2409.0	2413.2	2421.9	2421.9
37.5°	2111.6	2133.1	2107.2	2120.2	2115.9	2115.9	2115.9	2128.9
40°	1801.4	1805.6	1797.0	1797.0	1797.0	1792.8	1810.0	1805.6
42.5°	1508.2	1512.6	1508.2	1495.4	1499.6	1499.6	1512.6	1495.4
45°	1223.9	1232.5	1228.1	1228.1	1219.5	1219.5	1223.9	1215.2
47.5°	969.6	978.2	965.2	969.6	961.0	969.6	965.2	973.9
50°	736.9	745.5	741.2	745.5	745.5	736.9	749.9	732.6
52.5°	551.6	555.9	551.6	547.2	543.0	543.0	551.6	547.2
55°	392.1	387.9	387.9	387.9	392.1	392.1	387.9	383.5
57.5°	262.9	262.9	258.6	258.6	262.9	254.2	258.6	254.2
60°	168.1	168.1	168.1	168.1	163.8	168.1	168.1	168.1
62.5°	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
65°	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
67.5°	43.1	47.4	47.4	47.4	43.1	43.1	43.1	43.1
70°	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
72.5°	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
75°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
77.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
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)