

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: P252318

Luminaire Tested: **LE_6B60D010R EC6B60709035 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252318
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 EC6B60709035 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5976.2 lumens
Efficiency: N/A
Efficacy: 95.6 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

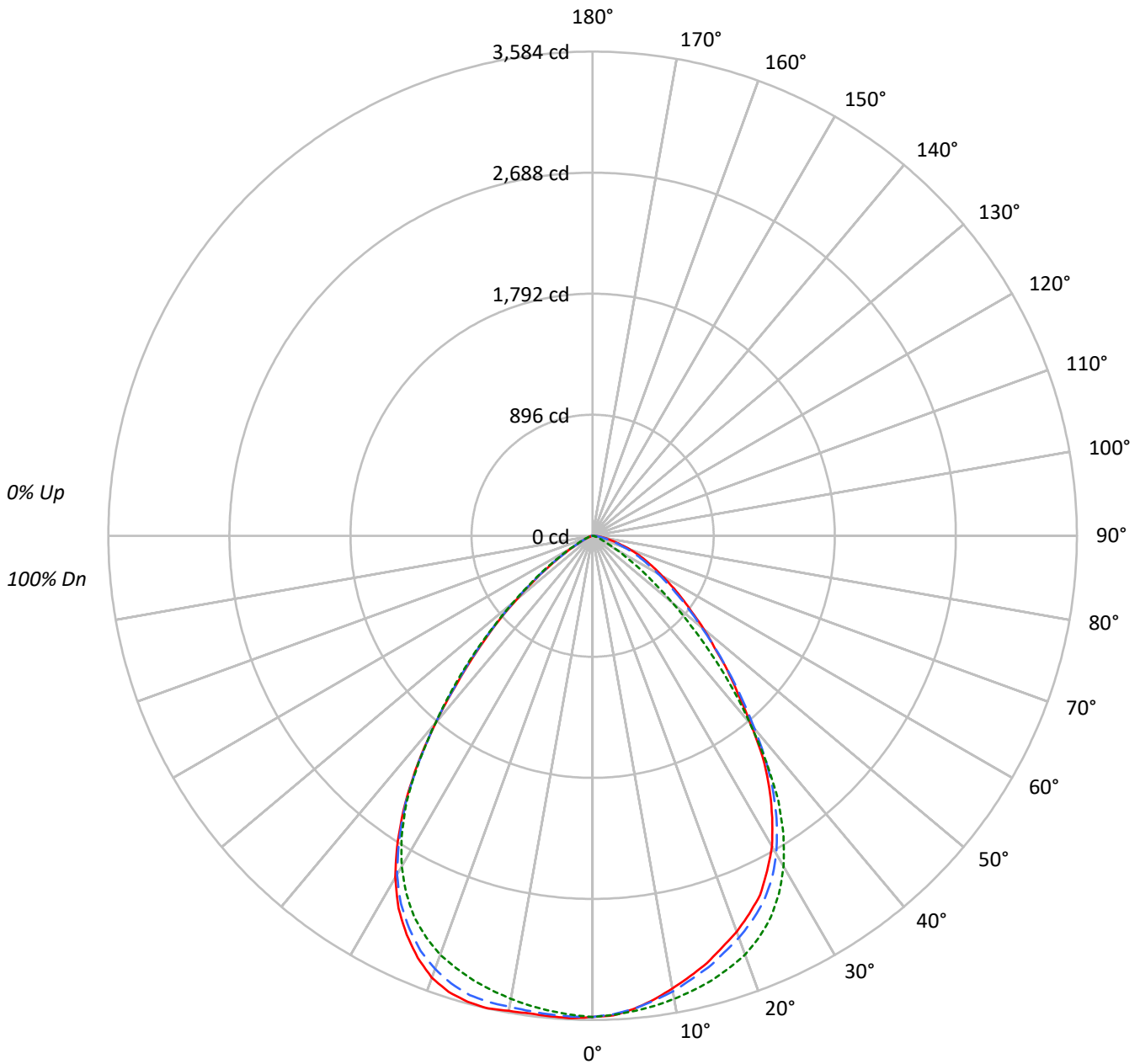
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	232400	232400	232400
5°	230190	231317	233858
10°	225439	230573	236562
15°	221133	230143	241186
20°	216552	229097	241643
25°	211211	224529	234441
30°	199972	212930	220056
35°	181597	190859	192571
40°	154993	154252	153519
45°	130194	115506	111935
50°	108723	78162	74234
55°	91507	47954	43552
60°	77480	25261	21895
65°	67075	13276	10636
70°	55795	8202	5742
75°	41214	5420	3252
80°	32311	3231	1578
85°	25750	3144	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.7	5.6
10°-20°	961.3	16.1
20°-30°	1419.4	23.8
30°-40°	1462.9	24.5
40°-50°	1010.4	16.9
50°-60°	498.0	8.3
60°-70°	201.8	3.4
70°-80°	71.9	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°	2716.4	45.5
0°-40°	4179.3	69.9
0°-60°	5687.7	95.2
0°-90°	5976.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5976.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3562	3562	3562	3562	3562	
5°	3515	3515	3532	3558	3571	332
15°	3274	3308	3407	3519	3571	922
25°	2934	2990	3119	3209	3257	1341
35°	2280	2336	2396	2409	2418	1413
45°	1411	1420	1252	1235	1213	1091
55°	804	774	422	396	383	727
65°	434	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°	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2
2.5°	3553.6	3540.8	3549.2	3532.1	3553.6	3532.1	3536.4	3540.8	3536.4	3540.8	3545.0
5°	3514.9	3502.0	3514.9	3493.4	3514.9	3502.0	3502.0	3506.2	3506.2	3510.6	3514.9
7.5°	3463.2	3450.4	3463.2	3441.8	3467.6	3454.6	3454.6	3463.2	3459.0	3463.2	3471.9
10°	3403.0	3385.9	3398.8	3385.9	3411.6	3394.4	3403.0	3403.0	3403.0	3416.0	3424.5
12.5°	3338.5	3321.2	3338.5	3317.0	3342.8	3329.9	3334.2	3347.1	3351.4	3360.0	3364.2
15°	3274.0	3252.5	3261.0	3248.1	3274.0	3261.0	3265.4	3282.6	3282.6	3295.5	3308.4
17.5°	3192.2	3175.0	3192.2	3175.0	3196.5	3187.9	3196.5	3209.4	3209.4	3222.4	3235.2
20°	3119.1	3101.9	3114.8	3101.9	3127.8	3114.8	3119.1	3136.2	3140.6	3153.5	3166.4
22.5°	3028.8	3015.9	3024.5	3011.5	3037.4	3028.8	3033.0	3050.2	3054.5	3063.1	3084.6
25°	2934.1	2908.2	2921.1	2912.6	2938.4	2925.5	2934.1	2951.2	2959.9	2972.9	2990.0
27.5°	2796.4	2783.5	2792.1	2792.1	2813.6	2800.8	2805.0	2822.2	2835.1	2848.0	2869.5
30°	2654.5	2633.0	2641.5	2645.9	2663.0	2654.5	2663.0	2680.2	2684.6	2701.8	2719.0
32.5°	2473.8	2465.1	2482.4	2473.8	2482.4	2482.4	2486.6	2499.6	2508.1	2516.8	2538.2
35°	2280.1	2263.0	2280.1	2271.5	2293.1	2280.1	2293.1	2306.0	2306.0	2323.1	2336.1
37.5°	2069.4	2047.9	2056.5	2056.5	2065.0	2060.8	2060.8	2082.2	2086.5	2099.5	2112.4
40°	1819.9	1811.2	1828.4	1824.1	1828.4	1828.4	1832.8	1845.6	1854.2	1858.5	1862.9
42.5°	1596.1	1600.4	1604.8	1604.8	1604.8	1604.8	1604.8	1621.9	1617.6	1630.5	1634.9
45°	1411.1	1393.9	1402.5	1398.2	1411.1	1398.2	1411.1	1424.0	1415.4	1428.4	1419.8
47.5°	1221.9	1221.9	1221.9	1217.5	1226.1	1221.9	1230.4	1234.8	1234.8	1234.8	1230.4
50°	1071.2	1058.4	1062.6	1062.6	1067.0	1062.6	1071.2	1075.5	1075.5	1067.0	1049.8
52.5°	925.0	920.6	920.6	929.2	929.2	925.0	925.0	925.0	925.0	912.1	903.5
55°	804.5	795.9	800.2	800.2	800.2	800.2	804.5	800.2	800.2	787.2	774.4
57.5°	697.0	688.4	688.4	688.4	692.6	688.4	688.4	688.4	684.0	671.1	653.9
60°	593.8	589.4	593.8	593.8	598.0	593.8	593.8	593.8	585.1	572.2	555.0
62.5°	507.6	507.6	507.6	512.0	512.0	507.6	507.6	503.4	499.0	481.9	464.6
65°	434.5	430.2	434.5	434.5	438.9	438.9	434.5	430.2	425.9	408.8	391.5
67.5°	361.4	357.1	361.4	361.4	365.6	361.4	361.4	361.4	348.5	339.9	322.6
70°	292.5	288.2	288.2	288.2	292.5	284.0	288.2	288.2	279.6	266.8	249.5
72.5°	223.8	223.8	223.8	223.8	223.8	223.8	219.4	219.4	210.8	197.9	189.2
75°	163.5	163.5	167.8	167.8	163.5	163.5	163.5	159.1	154.9	146.2	137.6
77.5°	120.5	120.5	120.5	120.5	116.1	116.1	116.1	111.9	107.5	103.2	94.6
80°	86.0	86.0	86.0	81.8	86.0	81.8	81.8	81.8	73.1	68.9	64.5
82.5°	60.2	55.9	55.9	55.9	55.9	55.9	55.9	51.6	51.6	47.4	43.0
85°	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	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°	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2
2.5°	3545.0	3545.0	3553.6	3540.8	3562.2	3549.2	3545.0	3566.5	3553.6	3549.2	3557.9
5°	3514.9	3519.2	3523.5	3514.9	3536.4	3523.5	3523.5	3545.0	3536.4	3532.1	3545.0
7.5°	3476.1	3480.5	3489.1	3484.8	3502.0	3493.4	3497.6	3519.2	3510.6	3510.6	3523.5
10°	3428.9	3437.5	3446.0	3446.0	3467.6	3459.0	3459.0	3484.8	3476.1	3480.5	3497.6
12.5°	3372.9	3385.9	3398.8	3403.0	3424.5	3411.6	3416.0	3446.0	3441.8	3446.0	3463.2
15°	3312.6	3329.9	3342.8	3342.8	3368.6	3355.8	3368.6	3398.8	3390.1	3407.4	3428.9
17.5°	3243.9	3261.0	3278.2	3282.6	3308.4	3299.8	3317.0	3347.1	3347.1	3355.8	3381.5
20°	3179.4	3200.9	3209.4	3222.4	3248.1	3243.9	3252.5	3286.9	3286.9	3299.8	3325.6
22.5°	3093.2	3114.8	3132.0	3144.9	3166.4	3166.4	3179.4	3209.4	3209.4	3218.0	3243.9
25°	2998.6	3024.5	3037.4	3050.2	3071.8	3067.5	3080.4	3106.1	3110.5	3119.1	3144.9
27.5°	2878.1	2899.6	2916.9	2925.5	2955.6	2938.4	2951.2	2981.4	2977.1	2985.8	3007.2
30°	2727.6	2749.1	2766.2	2766.2	2792.1	2792.1	2805.0	2817.9	2817.9	2826.5	2843.8
32.5°	2551.2	2577.0	2577.0	2589.9	2607.1	2589.9	2607.1	2624.4	2615.8	2628.6	2641.5
35°	2349.0	2361.9	2366.2	2366.2	2379.1	2374.8	2370.5	2383.4	2374.8	2396.4	2409.2
37.5°	2103.8	2121.0	2112.4	2121.0	2116.6	2103.8	2103.8	2125.2	2108.1	2112.4	2125.2
40°	1867.1	1867.1	1862.9	1841.4	1845.6	1832.8	1828.4	1832.8	1815.5	1811.2	1828.4
42.5°	1621.9	1617.6	1604.8	1574.6	1578.9	1557.4	1540.1	1540.1	1531.6	1527.2	1531.6
45°	1402.5	1389.6	1368.1	1333.6	1325.1	1307.9	1273.5	1264.9	1251.9	1251.9	1256.2
47.5°	1200.2	1183.1	1148.6	1110.0	1088.5	1067.0	1032.5	1019.6	998.1	989.5	998.1
50°	1032.5	1002.4	959.4	903.5	882.0	856.1	821.8	800.2	778.8	770.1	765.8
52.5°	877.6	834.6	791.6	722.8	705.5	679.8	632.4	610.9	589.4	572.2	572.2
55°	744.2	705.5	645.4	580.8	555.0	529.1	481.9	451.8	430.2	421.6	413.0
57.5°	623.9	580.8	524.9	456.0	430.2	404.4	357.1	327.0	305.5	292.5	284.0
60°	524.9	477.5	421.6	361.4	331.2	305.5	258.1	228.0	206.5	193.6	185.0
62.5°	430.2	391.5	335.6	279.6	253.9	228.0	189.2	159.1	137.6	129.1	116.1
65°	361.4	322.6	271.0	223.8	202.2	176.4	142.0	116.1	99.0	86.0	77.5
67.5°	292.5	262.4	219.4	176.4	154.9	137.6	107.5	86.0	68.9	60.2	55.9
70°	232.4	202.2	167.8	133.4	120.5	103.2	81.8	60.2	51.6	43.0	38.8
72.5°	172.1	150.6	124.8	99.0	86.0	77.5	55.9	47.4	34.4	30.1	25.9
75°	124.8	107.5	90.4	68.9	60.2	55.9	43.0	30.1	25.9	21.5	17.2
77.5°	86.0	77.5	60.2	47.4	43.0	38.8	30.1	21.5	17.2	12.9	12.9
80°	55.9	47.4	38.8	30.1	30.1	25.9	17.2	12.9	12.9	8.6	8.6
82.5°	34.4	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°	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2
2.5°	3557.9	3557.9	3566.5	3553.6	3562.2	3562.2	3570.9	3553.6	3562.2	3566.5	3575.1
5°	3540.8	3545.0	3553.6	3549.2	3553.6	3553.6	3562.2	3540.8	3557.9	3557.9	3570.9
7.5°	3523.5	3523.5	3532.1	3527.8	3536.4	3540.8	3549.2	3532.1	3549.2	3549.2	3562.2
10°	3502.0	3502.0	3514.9	3510.6	3523.5	3527.8	3540.8	3523.5	3540.8	3545.0	3557.9
12.5°	3471.9	3476.1	3489.1	3489.1	3502.0	3510.6	3523.5	3514.9	3536.4	3540.8	3557.9
15°	3437.5	3446.0	3463.2	3459.0	3471.9	3484.8	3502.0	3489.1	3519.2	3527.8	3545.0
17.5°	3394.4	3403.0	3416.0	3416.0	3428.9	3437.5	3459.0	3450.4	3476.1	3480.5	3502.0
20°	3329.9	3342.8	3360.0	3355.8	3368.6	3377.2	3394.4	3385.9	3411.6	3420.2	3441.8
22.5°	3252.5	3261.0	3274.0	3274.0	3286.9	3295.5	3312.6	3299.8	3325.6	3329.9	3347.1
25°	3149.2	3157.8	3166.4	3170.8	3183.6	3187.9	3196.5	3187.9	3209.4	3213.8	3235.2
27.5°	3015.9	3020.1	3033.0	3033.0	3041.6	3046.0	3058.9	3041.6	3071.8	3071.8	3084.6
30°	2856.6	2852.4	2869.5	2861.0	2869.5	2869.5	2882.5	2873.9	2895.4	2886.8	2899.6
32.5°	2645.9	2654.5	2654.5	2645.9	2663.0	2658.8	2658.8	2650.1	2663.0	2667.4	2676.0
35°	2400.6	2413.5	2413.5	2417.9	2422.1	2409.2	2413.5	2387.8	2409.2	2413.5	2417.9
37.5°	2133.9	2121.0	2129.6	2116.6	2138.2	2112.4	2112.4	2095.1	2112.4	2112.4	2116.6
40°	1828.4	1824.1	1832.8	1824.1	1819.9	1815.5	1806.9	1794.0	1811.2	1802.6	1815.5
42.5°	1540.1	1535.9	1535.9	1527.2	1523.0	1523.0	1514.4	1505.8	1501.5	1501.5	1523.0
45°	1243.4	1251.9	1243.4	1239.0	1247.6	1239.0	1243.4	1226.1	1234.8	1226.1	1234.8
47.5°	993.8	998.1	989.5	980.9	993.8	980.9	980.9	968.0	985.2	985.2	976.6
50°	770.1	765.8	757.1	765.8	761.5	761.5	761.5	748.6	757.1	744.2	752.9
52.5°	567.9	563.6	563.6	559.2	563.6	559.2	559.2	555.0	555.0	550.6	555.0
55°	413.0	408.8	400.1	400.1	400.1	404.4	400.1	395.8	395.8	391.5	395.8
57.5°	279.6	271.0	271.0	271.0	271.0	266.8	266.8	262.4	266.8	262.4	266.8
60°	180.8	180.8	172.1	172.1	172.1	172.1	172.1	167.8	172.1	172.1	172.1
62.5°	111.9	111.9	107.5	103.2	107.5	103.2	103.2	103.2	107.5	103.2	107.5
65°	73.1	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
67.5°	51.6	47.4	47.4	47.4	47.4	47.4	47.4	43.0	47.4	47.4	47.4
70°	34.4	34.4	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: P252318

CATALOG NUMBER: LE_6B60D010R EC6B60709035 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2	3562.2
2.5°	3562.2	3566.5	3557.9	3562.2	3553.6	3562.2	3566.5	3575.1
5°	3553.6	3557.9	3549.2	3557.9	3549.2	3557.9	3562.2	3570.9
7.5°	3545.0	3553.6	3545.0	3553.6	3545.0	3553.6	3557.9	3566.5
10°	3545.0	3557.9	3549.2	3562.2	3549.2	3557.9	3566.5	3570.9
12.5°	3545.0	3557.9	3553.6	3562.2	3557.9	3566.5	3575.1	3583.8
15°	3536.4	3549.2	3540.8	3553.6	3549.2	3553.6	3570.9	3570.9
17.5°	3489.1	3502.0	3502.0	3510.6	3510.6	3523.5	3532.1	3540.8
20°	3428.9	3441.8	3437.5	3450.4	3450.4	3463.2	3471.9	3480.5
22.5°	3338.5	3355.8	3351.4	3364.2	3360.0	3368.6	3385.9	3381.5
25°	3222.4	3243.9	3239.5	3248.1	3243.9	3243.9	3252.5	3256.8
27.5°	3080.4	3093.2	3089.0	3097.6	3089.0	3097.6	3106.1	3110.5
30°	2895.4	2904.0	2899.6	2904.0	2899.6	2908.2	2912.6	2921.1
32.5°	2671.6	2684.6	2671.6	2680.2	2676.0	2676.0	2693.1	2684.6
35°	2404.9	2409.2	2413.5	2413.5	2404.9	2409.2	2417.9	2417.9
37.5°	2108.1	2129.6	2103.8	2116.6	2112.4	2112.4	2112.4	2125.2
40°	1798.4	1802.6	1794.0	1794.0	1794.0	1789.8	1806.9	1802.6
42.5°	1505.8	1510.1	1505.8	1492.9	1497.1	1497.1	1510.1	1492.9
45°	1221.9	1230.4	1226.1	1226.1	1217.5	1217.5	1221.9	1213.2
47.5°	968.0	976.6	963.8	968.0	959.4	968.0	963.8	972.2
50°	735.6	744.2	740.0	744.2	744.2	735.6	748.6	731.4
52.5°	550.6	555.0	550.6	546.4	542.1	542.1	550.6	546.4
55°	391.5	387.2	387.2	387.2	391.5	391.5	387.2	382.9
57.5°	262.4	262.4	258.1	258.1	262.4	253.9	258.1	253.9
60°	167.8	167.8	167.8	167.8	163.5	167.8	167.8	167.8
62.5°	103.2	103.2	103.2	103.2	103.2	103.2	103.2	103.2
65°	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
67.5°	43.0	47.4	47.4	47.4	43.0	43.0	43.0	43.0
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)