

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: P252320

Luminaire Tested: **LE_6B60D010R EC6B60709050 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252320
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 EC6B60709050 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6012.5 lumens
Efficiency: N/A
Efficacy: 96.2 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

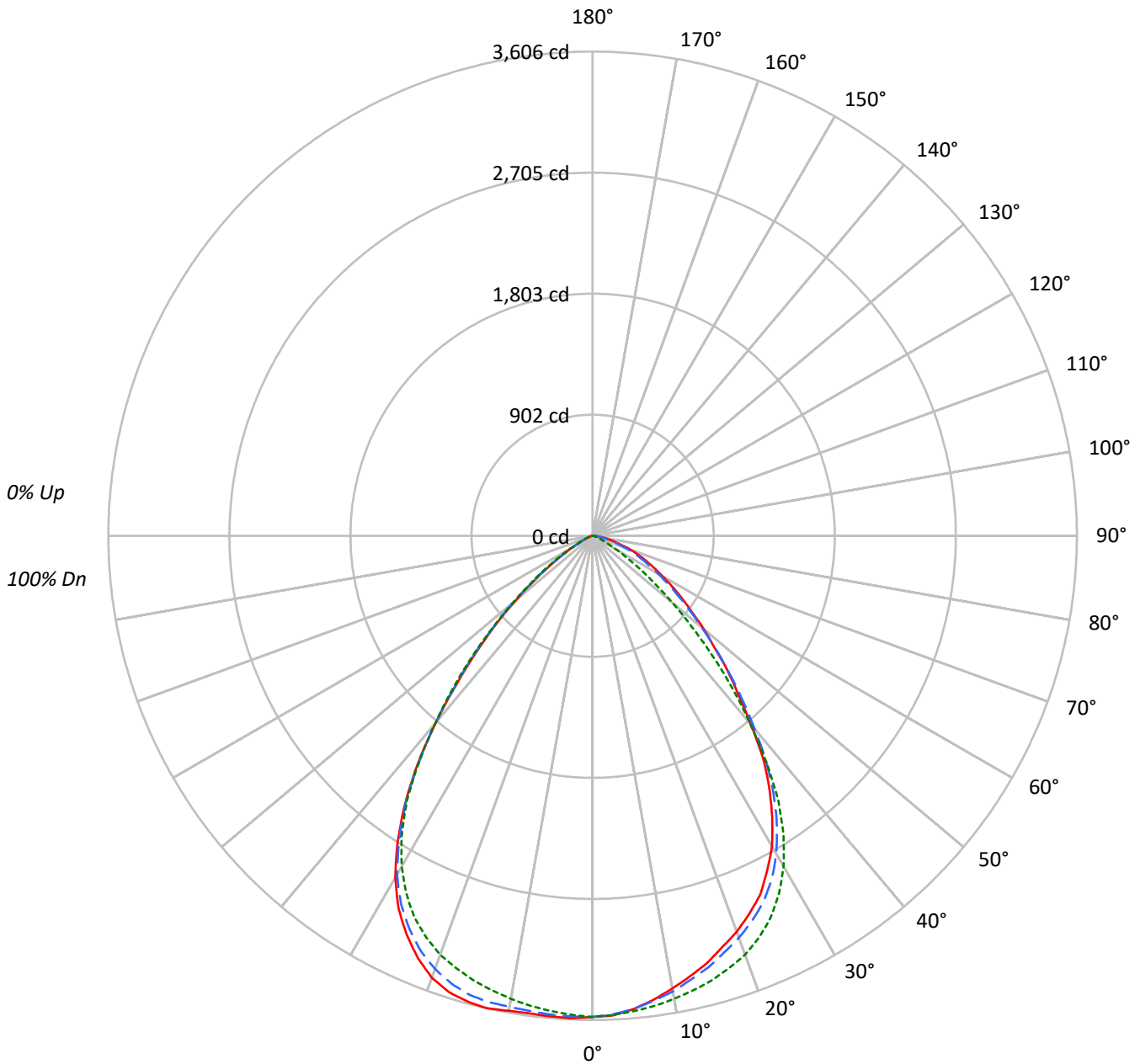
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47				47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				43
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40				40
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	233816	233816	233816
5°	231585	232718	235272
10°	226803	231971	237993
15°	222477	231534	242645
20°	217864	230486	243108
25°	212493	225889	235859
30°	201178	214218	221397
35°	182704	192014	193734
40°	155930	155189	154448
45°	130978	116207	112618
50°	109393	78639	74681
55°	92064	48239	43814
60°	77923	25418	22025
65°	67476	13369	10683
70°	56157	8240	5761
75°	41466	5445	3277
80°	32536	3231	1653
85°	25900	3294	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.8	5.6
10°-20°	967.1	16.1
20°-30°	1428.1	23.8
30°-40°	1471.7	24.5
40°-50°	1016.5	16.9
50°-60°	501.0	8.3
60°-70°	203.0	3.4
70°-80°	72.3	1.2
80°-90°	15.0	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°	2732.9	45.5
0°-40°	4204.6	69.9
0°-60°	5722.2	95.2
0°-90°	6012.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6012.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3584	3584	3584	3584	3584	
5°	3536	3536	3554	3580	3592	334
15°	3294	3328	3428	3540	3592	927
25°	2952	3008	3138	3229	3276	1349
35°	2294	2350	2411	2424	2432	1421
45°	1420	1428	1260	1242	1221	1097
55°	809	779	424	398	385	731
65°	437	394	87	69	69	434
75°	164	138	22	13	13	185
85°	35	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°	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9
2.5°	3575.1	3562.1	3570.9	3553.5	3575.1	3553.5	3557.9	3562.1	3557.9	3562.1	3566.5
5°	3536.2	3523.2	3536.2	3514.6	3536.2	3523.2	3523.2	3527.5	3527.5	3531.9	3536.2
7.5°	3484.2	3471.2	3484.2	3462.6	3488.6	3475.6	3475.6	3484.2	3480.0	3484.2	3492.9
10°	3423.6	3406.4	3419.4	3406.4	3432.4	3415.0	3423.6	3423.6	3423.6	3436.6	3445.4
12.5°	3358.8	3341.4	3358.8	3337.1	3363.1	3350.1	3354.4	3367.4	3371.8	3380.4	3384.8
15°	3293.9	3272.1	3280.9	3267.9	3293.9	3280.9	3285.1	3302.5	3302.5	3315.5	3328.5
17.5°	3211.6	3194.2	3211.6	3194.2	3215.9	3207.2	3215.9	3228.9	3228.9	3241.9	3254.9
20°	3138.0	3120.8	3133.6	3120.8	3146.6	3133.6	3138.0	3155.4	3159.6	3172.6	3185.6
22.5°	3047.1	3034.1	3042.8	3029.8	3055.8	3047.1	3051.5	3068.8	3073.1	3081.8	3103.4
25°	2951.9	2925.9	2938.9	2930.2	2956.2	2943.2	2951.9	2969.2	2977.9	2990.9	3008.1
27.5°	2813.4	2800.4	2809.0	2809.0	2830.8	2817.8	2822.0	2839.4	2852.4	2865.4	2887.0
30°	2670.5	2648.9	2657.6	2661.9	2679.2	2670.5	2679.2	2696.5	2700.9	2718.1	2735.5
32.5°	2488.8	2480.1	2497.4	2488.8	2497.4	2497.4	2501.8	2514.8	2523.4	2532.0	2553.8
35°	2294.0	2276.6	2294.0	2285.4	2307.0	2294.0	2307.0	2320.0	2320.0	2337.2	2350.2
37.5°	2081.9	2060.2	2068.9	2068.9	2077.6	2073.2	2073.2	2094.9	2099.2	2112.2	2125.2
40°	1830.9	1822.2	1839.5	1835.2	1839.5	1839.5	1843.9	1856.9	1865.5	1869.9	1874.1
42.5°	1605.8	1610.1	1614.5	1614.5	1614.5	1614.5	1614.5	1631.8	1627.4	1640.4	1644.8
45°	1419.6	1402.4	1411.0	1406.8	1419.6	1406.8	1419.6	1432.6	1424.0	1437.0	1428.4
47.5°	1229.2	1229.2	1229.2	1224.9	1233.5	1229.2	1237.9	1242.2	1242.2	1242.2	1237.9
50°	1077.8	1064.8	1069.1	1069.1	1073.4	1069.1	1077.8	1082.1	1082.1	1073.4	1056.1
52.5°	930.6	926.2	926.2	934.9	934.9	930.6	930.6	930.6	930.6	917.6	909.0
55°	809.4	800.8	805.0	805.0	805.0	805.0	809.4	805.0	805.0	792.1	779.1
57.5°	701.1	692.5	692.5	692.5	696.9	692.5	692.5	692.5	688.2	675.2	657.9
60°	597.2	593.0	597.2	597.2	601.6	597.2	597.2	597.2	588.6	575.6	558.4
62.5°	510.8	510.8	510.8	515.1	515.1	510.8	510.8	506.4	502.1	484.8	467.5
65°	437.1	432.9	437.1	437.1	441.5	441.5	437.1	432.9	428.5	411.1	393.9
67.5°	363.6	359.2	363.6	363.6	367.9	363.6	363.6	363.6	350.6	341.9	324.6
70°	294.4	290.0	290.0	290.0	294.4	285.6	290.0	290.0	281.4	268.4	251.0
72.5°	225.1	225.1	225.1	225.1	225.1	225.1	220.8	220.8	212.1	199.1	190.5
75°	164.5	164.5	168.8	168.8	164.5	164.5	164.5	160.1	155.9	147.1	138.5
77.5°	121.2	121.2	121.2	121.2	116.9	116.9	116.9	112.5	108.2	103.9	95.2
80°	86.6	86.6	86.6	82.2	86.6	82.2	82.2	82.2	73.6	69.2	64.9
82.5°	60.6	56.2	56.2	56.2	56.2	56.2	56.2	52.0	52.0	47.6	43.2
85°	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	30.2	26.0	26.0
87.5°	17.4	21.6	21.6	21.6	21.6	21.6	21.6	17.4	17.4	17.4	13.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9
2.5°	3566.5	3566.5	3575.1	3562.1	3583.9	3570.9	3566.5	3588.1	3575.1	3570.9	3579.5
5°	3536.2	3540.5	3544.9	3536.2	3557.9	3544.9	3544.9	3566.5	3557.9	3553.5	3566.5
7.5°	3497.2	3501.6	3510.2	3505.9	3523.2	3514.6	3518.9	3540.5	3531.9	3531.9	3544.9
10°	3449.6	3458.2	3467.0	3467.0	3488.6	3480.0	3480.0	3505.9	3497.2	3501.6	3518.9
12.5°	3393.4	3406.4	3419.4	3423.6	3445.4	3432.4	3436.6	3467.0	3462.6	3467.0	3484.2
15°	3332.8	3350.1	3363.1	3363.1	3389.0	3376.0	3389.0	3419.4	3410.8	3428.0	3449.6
17.5°	3263.5	3280.9	3298.1	3302.5	3328.5	3319.8	3337.1	3367.4	3367.4	3376.0	3402.0
20°	3198.6	3220.2	3228.9	3241.9	3267.9	3263.5	3272.1	3306.8	3306.8	3319.8	3345.8
22.5°	3112.0	3133.6	3151.0	3164.0	3185.6	3185.6	3198.6	3228.9	3228.9	3237.5	3263.5
25°	3016.9	3042.8	3055.8	3068.8	3090.4	3086.1	3099.0	3125.0	3129.4	3138.0	3164.0
27.5°	2895.6	2917.2	2934.6	2943.2	2973.5	2956.2	2969.2	2999.5	2995.1	3003.9	3025.5
30°	2744.1	2765.8	2783.1	2783.1	2809.0	2809.0	2822.0	2835.0	2835.0	2843.6	2861.0
32.5°	2566.6	2592.6	2592.6	2605.6	2623.0	2605.6	2623.0	2640.2	2631.6	2644.6	2657.6
35°	2363.2	2376.2	2380.5	2380.5	2393.5	2389.2	2384.9	2397.9	2389.2	2410.9	2423.9
37.5°	2116.5	2133.9	2125.2	2133.9	2129.5	2116.5	2116.5	2138.1	2120.9	2125.2	2138.1
40°	1878.5	1878.5	1874.1	1852.5	1856.9	1843.9	1839.5	1843.9	1826.5	1822.2	1839.5
42.5°	1631.8	1627.4	1614.5	1584.1	1588.5	1566.9	1549.5	1549.5	1540.9	1536.5	1540.9
45°	1411.0	1398.0	1376.4	1341.8	1333.1	1315.8	1281.1	1272.5	1259.5	1259.5	1263.9
47.5°	1207.6	1190.2	1155.6	1116.8	1095.0	1073.4	1038.8	1025.8	1004.1	995.5	1004.1
50°	1038.8	1008.5	965.2	909.0	887.2	861.4	826.8	805.0	783.4	774.8	770.4
52.5°	883.0	839.6	796.4	727.1	709.9	683.9	636.2	614.6	593.0	575.6	575.6
55°	748.8	709.9	649.2	584.4	558.4	532.4	484.8	454.5	432.9	424.1	415.5
57.5°	627.6	584.4	528.0	458.8	432.9	406.9	359.2	329.0	307.2	294.4	285.6
60°	528.0	480.5	424.1	363.6	333.2	307.2	259.8	229.4	207.8	194.8	186.1
62.5°	432.9	393.9	337.6	281.4	255.4	229.4	190.5	160.1	138.5	129.9	116.9
65°	363.6	324.6	272.6	225.1	203.4	177.5	142.9	116.9	99.5	86.6	77.9
67.5°	294.4	264.0	220.8	177.5	155.9	138.5	108.2	86.6	69.2	60.6	56.2
70°	233.8	203.4	168.8	134.1	121.2	103.9	82.2	60.6	52.0	43.2	39.0
72.5°	173.1	151.5	125.5	99.5	86.6	77.9	56.2	47.6	34.6	30.2	26.0
75°	125.5	108.2	90.9	69.2	60.6	56.2	43.2	30.2	26.0	21.6	17.4
77.5°	86.6	77.9	60.6	47.6	43.2	39.0	30.2	21.6	17.4	13.0	13.0
80°	56.2	47.6	39.0	30.2	30.2	26.0	17.4	13.0	13.0	8.6	8.6
82.5°	34.6	30.2	26.0	21.6	17.4	17.4	13.0	8.6	8.6	4.4	4.4
85°	21.6	17.4	13.0	13.0	8.6	8.6	8.6	4.4	4.4	4.4	4.4
87.5°	8.6	8.6	8.6	4.4	4.4	4.4	4.4	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°	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9
2.5°	3579.5	3579.5	3588.1	3575.1	3583.9	3583.9	3592.5	3575.1	3583.9	3588.1	3596.8
5°	3562.1	3566.5	3575.1	3570.9	3575.1	3575.1	3583.9	3562.1	3579.5	3579.5	3592.5
7.5°	3544.9	3544.9	3553.5	3549.2	3557.9	3562.1	3570.9	3553.5	3570.9	3570.9	3583.9
10°	3523.2	3523.2	3536.2	3531.9	3544.9	3549.2	3562.1	3544.9	3562.1	3566.5	3579.5
12.5°	3492.9	3497.2	3510.2	3510.2	3523.2	3531.9	3544.9	3536.2	3557.9	3562.1	3579.5
15°	3458.2	3467.0	3484.2	3480.0	3492.9	3505.9	3523.2	3510.2	3540.5	3549.2	3566.5
17.5°	3415.0	3423.6	3436.6	3436.6	3449.6	3458.2	3480.0	3471.2	3497.2	3501.6	3523.2
20°	3350.1	3363.1	3380.4	3376.0	3389.0	3397.8	3415.0	3406.4	3432.4	3441.0	3462.6
22.5°	3272.1	3280.9	3293.9	3293.9	3306.8	3315.5	3332.8	3319.8	3345.8	3350.1	3367.4
25°	3168.2	3177.0	3185.6	3190.0	3202.9	3207.2	3215.9	3207.2	3228.9	3233.2	3254.9
27.5°	3034.1	3038.5	3051.5	3051.5	3060.1	3064.4	3077.4	3060.1	3090.4	3090.4	3103.4
30°	2874.0	2869.6	2887.0	2878.2	2887.0	2887.0	2900.0	2891.2	2912.9	2904.2	2917.2
32.5°	2661.9	2670.5	2670.5	2661.9	2679.2	2674.9	2674.9	2666.2	2679.2	2683.5	2692.2
35°	2415.1	2428.1	2428.1	2432.5	2436.9	2423.9	2428.1	2402.2	2423.9	2428.1	2432.5
37.5°	2146.9	2133.9	2142.5	2129.5	2151.1	2125.2	2125.2	2107.9	2125.2	2125.2	2129.5
40°	1839.5	1835.2	1843.9	1835.2	1830.9	1826.5	1817.9	1804.9	1822.2	1813.5	1826.5
42.5°	1549.5	1545.2	1545.2	1536.5	1532.2	1532.2	1523.5	1514.9	1510.6	1510.6	1532.2
45°	1250.9	1259.5	1250.9	1246.5	1255.2	1246.5	1250.9	1233.5	1242.2	1233.5	1242.2
47.5°	999.9	1004.1	995.5	986.9	999.9	986.9	986.9	973.9	991.1	991.1	982.5
50°	774.8	770.4	761.8	770.4	766.1	766.1	766.1	753.1	761.8	748.8	757.5
52.5°	571.4	567.0	567.0	562.6	567.0	562.6	562.6	558.4	558.4	554.0	558.4
55°	415.5	411.1	402.5	402.5	402.5	406.9	402.5	398.2	398.2	393.9	398.2
57.5°	281.4	272.6	272.6	272.6	272.6	268.4	268.4	264.0	268.4	264.0	268.4
60°	181.8	181.8	173.1	173.1	173.1	173.1	173.1	168.8	173.1	173.1	173.1
62.5°	112.5	112.5	108.2	103.9	108.2	103.9	103.9	103.9	108.2	103.9	108.2
65°	73.6	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
67.5°	52.0	47.6	47.6	47.6	47.6	47.6	47.6	43.2	47.6	47.6	47.6
70°	34.6	34.6	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
72.5°	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
75°	17.4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
77.5°	13.0	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	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
82.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
85°	4.4	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	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
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: P252320

CATALOG NUMBER: LE_6B60D010R EC6B60709050 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9	3583.9
2.5°	3583.9	3588.1	3579.5	3583.9	3575.1	3583.9	3588.1	3596.8
5°	3575.1	3579.5	3570.9	3579.5	3570.9	3579.5	3583.9	3592.5
7.5°	3566.5	3575.1	3566.5	3575.1	3566.5	3575.1	3579.5	3588.1
10°	3566.5	3579.5	3570.9	3583.9	3570.9	3579.5	3588.1	3592.5
12.5°	3566.5	3579.5	3575.1	3583.9	3579.5	3588.1	3596.8	3605.5
15°	3557.9	3570.9	3562.1	3575.1	3570.9	3575.1	3592.5	3592.5
17.5°	3510.2	3523.2	3523.2	3531.9	3531.9	3544.9	3553.5	3562.1
20°	3449.6	3462.6	3458.2	3471.2	3471.2	3484.2	3492.9	3501.6
22.5°	3358.8	3376.0	3371.8	3384.8	3380.4	3389.0	3406.4	3402.0
25°	3241.9	3263.5	3259.2	3267.9	3263.5	3263.5	3272.1	3276.5
27.5°	3099.0	3112.0	3107.8	3116.4	3107.8	3116.4	3125.0	3129.4
30°	2912.9	2921.6	2917.2	2921.6	2917.2	2925.9	2930.2	2938.9
32.5°	2687.9	2700.9	2687.9	2696.5	2692.2	2692.2	2709.5	2700.9
35°	2419.5	2423.9	2428.1	2428.1	2419.5	2423.9	2432.5	2432.5
37.5°	2120.9	2142.5	2116.5	2129.5	2125.2	2125.2	2125.2	2138.1
40°	1809.2	1813.5	1804.9	1804.9	1804.9	1800.6	1817.9	1813.5
42.5°	1514.9	1519.2	1514.9	1501.9	1506.2	1506.2	1519.2	1501.9
45°	1229.2	1237.9	1233.5	1233.5	1224.9	1224.9	1229.2	1220.6
47.5°	973.9	982.5	969.5	973.9	965.2	973.9	969.5	978.2
50°	740.1	748.8	744.5	748.8	748.8	740.1	753.1	735.8
52.5°	554.0	558.4	554.0	549.8	545.4	545.4	554.0	549.8
55°	393.9	389.5	389.5	389.5	393.9	393.9	389.5	385.2
57.5°	264.0	264.0	259.8	259.8	264.0	255.4	259.8	255.4
60°	168.8	168.8	168.8	168.8	164.5	168.8	168.8	168.8
62.5°	103.9	103.9	103.9	103.9	103.9	103.9	103.9	103.9
65°	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
67.5°	43.2	47.6	47.6	47.6	43.2	43.2	43.2	43.2
70°	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
72.5°	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
75°	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
77.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
80°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
82.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	4.4	4.4	4.4	4.4	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)