

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: P252217

Luminaire Tested: **LE\_6B60D010R EC6B60709727 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252217  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B60D010R EC6B60709727 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6787.5 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

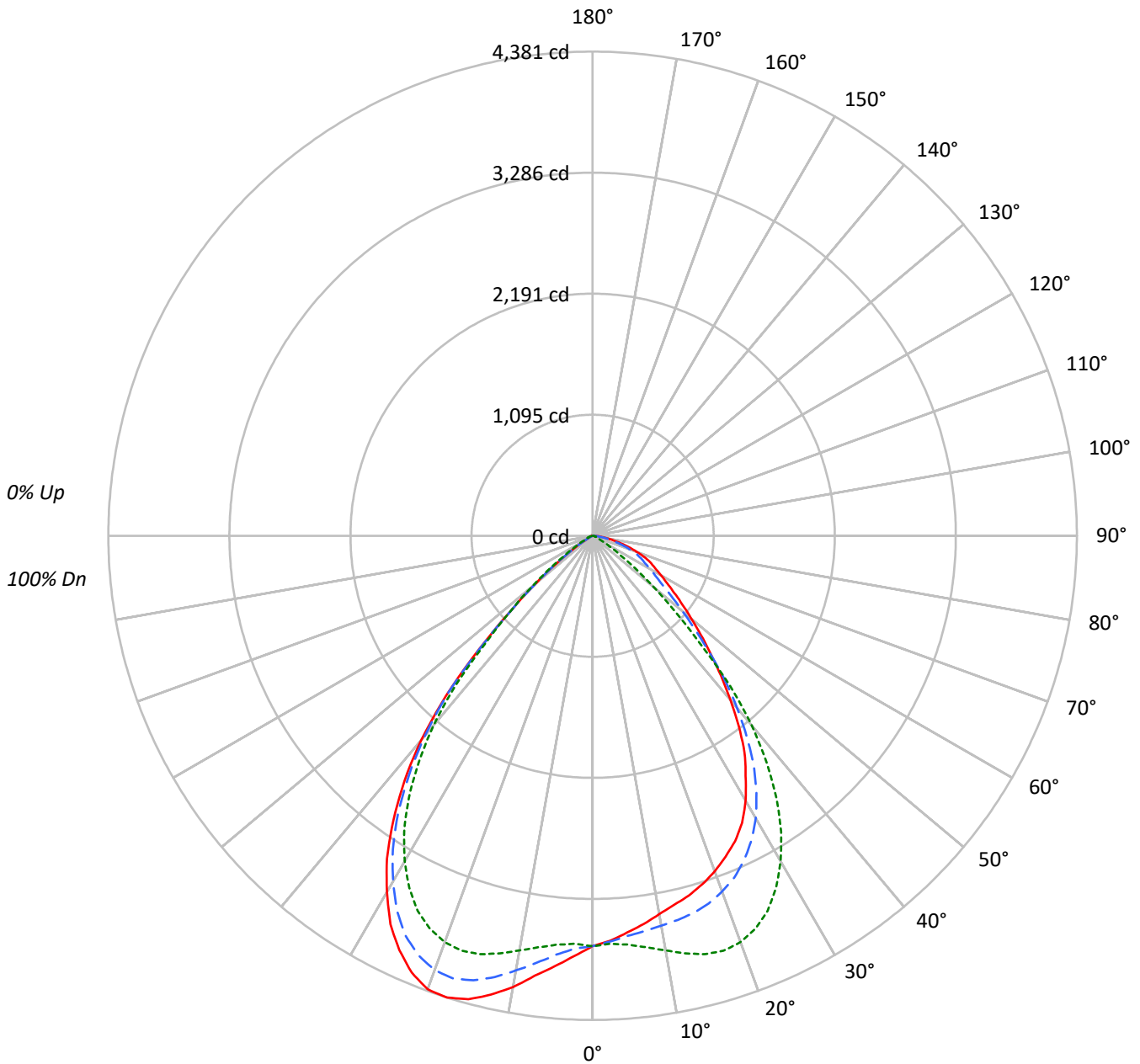
Input Watts (W): 62.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P252217

CATALOG NUMBER: LE\_6B60D010R EC6B60709727 6LBSW1LI

### 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	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80																			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72																			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48																			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40																			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	242251	242251	242251
5°	235973	243177	255967
10°	230242	252342	274687
15°	227549	264711	293241
20°	224286	271608	303156
25°	219518	269598	297716
30°	208598	256201	280270
35°	190843	231000	250226
40°	165068	190771	205292
45°	139208	125119	134291
50°	118182	72418	68104
55°	102574	34715	26252
60°	92642	16206	6498
65°	89876	9324	2192
70°	80592	7439	2022
75°	66244	5344	882
80°	49368	2668	0
85°	42518	0	0



TEST NUMBER: P252217

CATALOG NUMBER: LE\_6B60D010R EC6B60709727 6LBSW1LI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	358.7	5.3
10°-20°	1093.1	16.1
20°-30°	1670.2	24.6
30°-40°	1746.8	25.7
40°-50°	1133.2	16.7
50°-60°	449.9	6.6
60°-70°	213.4	3.1
70°-80°	101.5	1.5
80°-90°	20.7	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°	3121.9	46.0
0°-40°	4868.7	71.7
0°-60°	6451.8	95.1
0°-90°	6787.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6787.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3713	3713	3713	3713	3713	
5°	3603	3635	3713	3806	3908	340
15°	3369	3532	3919	4164	4342	949
25°	3050	3241	3745	3997	4136	1396
35°	2396	2542	2900	3071	3142	1482
45°	1509	1494	1356	1438	1456	1174
55°	902	767	305	238	231	817
65°	582	483	60	14	14	569
75°	263	213	21	7	4	283
85°	57	36	0	0	0	66
90°	0	0	0	0	0	



TEST NUMBER: P252217

CATALOG NUMBER: LE\_6B60D010R EC6B60709727 6LBSW1LI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2
2.5°	3667.1	3674.2	3635.2	3624.5	3653.0	3663.6	3667.1	3656.5	3660.0	3674.2	3674.2
5°	3603.2	3610.4	3574.9	3564.2	3592.6	3599.8	3610.4	3606.8	3617.5	3638.8	3635.2
7.5°	3542.9	3553.5	3514.5	3500.2	3535.8	3553.5	3560.6	3560.6	3574.9	3603.2	3606.8
10°	3475.5	3489.6	3454.1	3447.0	3486.1	3503.9	3507.4	3514.5	3535.8	3574.9	3582.0
12.5°	3418.6	3432.9	3408.0	3397.4	3440.0	3457.8	3464.8	3479.0	3503.9	3553.5	3560.6
15°	3369.0	3379.6	3351.2	3344.1	3386.8	3408.0	3411.5	3432.9	3464.8	3521.6	3532.2
17.5°	3305.0	3312.1	3290.9	3283.8	3326.4	3347.6	3351.2	3376.0	3415.1	3471.9	3489.6
20°	3230.5	3237.6	3216.2	3209.2	3251.8	3276.6	3280.2	3301.5	3347.6	3408.0	3425.8
22.5°	3141.8	3156.0	3131.1	3124.0	3166.6	3187.9	3198.5	3216.2	3262.5	3322.8	3347.6
25°	3049.5	3049.5	3031.8	3028.1	3067.2	3092.0	3088.5	3113.4	3159.5	3219.9	3241.1
27.5°	2928.8	2925.2	2907.5	2903.9	2946.5	2967.8	2960.8	2985.5	3028.1	3088.5	3109.8
30°	2769.0	2776.1	2751.2	2744.1	2779.6	2815.1	2811.6	2836.5	2879.0	2935.9	2950.0
32.5°	2577.2	2584.4	2580.9	2570.2	2602.1	2619.9	2630.5	2648.2	2683.8	2744.1	2758.4
35°	2396.2	2385.6	2371.4	2371.4	2403.4	2431.8	2421.1	2442.4	2477.9	2538.2	2541.8
37.5°	2172.6	2169.0	2162.0	2154.9	2190.4	2197.5	2201.0	2215.2	2247.1	2296.9	2289.8
40°	1938.2	1941.9	1938.2	1924.1	1945.4	1973.8	1970.2	1977.4	2005.8	2041.2	2030.6
42.5°	1718.2	1718.2	1718.2	1704.0	1728.9	1743.0	1750.1	1746.6	1753.8	1785.6	1771.5
45°	1508.8	1512.2	1508.8	1505.2	1508.8	1515.9	1508.8	1505.2	1505.2	1515.9	1494.5
47.5°	1327.8	1327.8	1317.0	1306.4	1317.0	1320.6	1310.0	1299.2	1295.8	1292.2	1256.8
50°	1164.4	1160.9	1157.2	1139.5	1150.2	1153.8	1139.5	1132.5	1118.2	1100.5	1057.9
52.5°	1022.4	1018.9	1015.2	997.5	1004.6	1008.2	994.0	979.8	962.0	947.9	894.6
55°	901.8	898.1	898.1	887.5	880.4	887.5	873.2	862.6	837.8	820.0	766.8
57.5°	798.8	798.8	791.6	781.0	784.5	784.5	770.4	756.1	734.9	713.5	671.0
60°	710.0	710.0	710.0	699.4	699.4	699.4	692.2	678.0	660.2	639.0	596.4
62.5°	639.0	639.0	635.5	624.8	628.4	628.4	621.2	607.0	589.2	575.1	532.5
65°	582.2	582.2	582.2	571.5	571.5	575.1	568.0	553.8	539.6	521.9	482.8
67.5°	511.2	507.6	507.6	500.5	504.1	507.6	500.5	489.9	472.1	461.5	426.0
70°	422.5	426.0	429.5	418.9	422.5	422.5	418.9	408.2	397.6	387.0	355.0
72.5°	344.4	344.4	340.8	337.2	337.2	340.8	333.8	323.0	316.0	308.9	284.0
75°	262.8	259.1	262.8	255.6	255.6	255.6	248.5	245.0	241.4	230.8	213.0
77.5°	191.8	188.1	188.1	181.0	184.6	184.6	181.0	174.0	166.9	163.2	149.1
80°	131.4	131.4	131.4	127.8	127.8	124.2	124.2	120.8	113.6	110.0	103.0
82.5°	88.8	88.8	88.8	85.2	85.2	85.2	81.6	78.1	74.5	71.0	63.9
85°	56.8	56.8	56.8	53.2	53.2	53.2	49.8	49.8	46.1	42.6	35.5
87.5°	32.0	32.0	32.0	28.4	28.4	28.4	28.4	28.4	24.9	21.2	17.8
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: P252217

CATALOG NUMBER: LE\_6B60D010R EC6B60709727 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2
2.5°	3699.1	3649.4	3681.4	3681.4	3670.8	3699.1	3716.9	3731.0	3727.5	3695.5	3692.0
5°	3670.8	3628.1	3663.6	3667.1	3656.5	3695.5	3720.4	3738.1	3741.8	3713.2	3716.9
7.5°	3649.4	3613.9	3660.0	3674.2	3670.8	3706.2	3734.6	3763.0	3777.2	3755.9	3759.5
10°	3638.8	3610.4	3660.0	3681.4	3684.9	3724.0	3766.5	3805.6	3823.4	3809.1	3819.8
12.5°	3624.5	3606.8	3663.6	3695.5	3709.8	3748.8	3802.0	3848.2	3876.6	3869.5	3890.8
15°	3610.4	3596.1	3663.6	3709.8	3727.5	3763.0	3823.4	3890.8	3922.8	3919.2	3947.6
17.5°	3574.9	3571.2	3642.2	3692.0	3716.9	3759.5	3816.2	3897.9	3929.9	3937.0	3972.5
20°	3518.0	3518.0	3596.1	3649.4	3677.8	3716.9	3787.9	3866.0	3905.0	3912.1	3951.1
22.5°	3440.0	3447.0	3521.6	3574.9	3617.5	3645.9	3720.4	3802.0	3837.5	3848.2	3890.8
25°	3337.0	3344.1	3415.1	3468.4	3514.5	3546.5	3617.5	3692.0	3734.6	3745.2	3777.2
27.5°	3202.1	3216.2	3283.8	3337.0	3376.0	3397.4	3471.9	3550.0	3582.0	3592.6	3624.5
30°	3045.9	3049.5	3116.9	3163.0	3202.1	3219.9	3283.8	3365.4	3390.2	3400.9	3447.0
32.5°	2854.2	2850.6	2914.5	2957.1	2989.1	3010.4	3077.9	3131.1	3156.0	3173.8	3198.5
35°	2623.5	2619.9	2666.0	2715.8	2740.6	2747.8	2815.1	2872.0	2886.1	2900.4	2932.2
37.5°	2364.2	2364.2	2403.4	2428.2	2456.6	2467.2	2499.2	2563.1	2588.0	2584.4	2609.2
40°	2091.0	2076.8	2105.1	2130.0	2137.1	2140.6	2172.6	2222.2	2240.0	2240.0	2257.8
42.5°	1803.4	1782.1	1785.6	1799.9	1807.0	1782.1	1803.4	1835.4	1824.8	1838.9	1842.5
45°	1498.1	1466.1	1452.0	1420.0	1427.1	1402.2	1388.0	1395.1	1391.6	1356.1	1363.2
47.5°	1249.6	1192.8	1168.0	1121.8	1111.1	1082.8	1065.0	1033.0	1004.6	1004.6	986.9
50°	1040.1	983.4	933.6	880.4	862.6	837.8	798.8	756.1	734.9	713.5	695.8
52.5°	873.2	813.0	752.6	695.8	671.0	639.0	585.8	543.1	504.1	482.8	461.5
55°	738.4	671.0	607.0	546.8	514.8	482.8	429.5	379.9	333.8	305.2	287.5
57.5°	635.5	571.5	504.1	440.2	411.8	376.2	319.5	266.2	223.6	191.8	174.0
60°	560.9	497.0	436.6	369.2	340.8	305.2	245.0	195.2	152.6	124.2	103.0
62.5°	497.0	440.2	376.2	316.0	287.5	252.0	195.2	145.5	106.5	78.1	60.4
65°	450.9	394.0	340.8	280.5	255.6	220.1	166.9	120.8	85.2	60.4	42.6
67.5°	397.6	347.9	294.6	245.0	220.1	191.8	142.0	103.0	71.0	49.8	35.5
70°	333.8	294.6	248.5	202.4	184.6	159.8	117.1	85.2	56.8	39.0	28.4
72.5°	266.2	234.2	198.8	163.2	149.1	124.2	95.9	67.5	42.6	28.4	21.2
75°	202.4	177.5	149.1	124.2	110.0	95.9	71.0	49.8	32.0	21.2	14.2
77.5°	138.5	127.8	106.5	85.2	78.1	67.5	46.1	32.0	21.2	14.2	7.1
80°	95.9	85.2	71.0	56.8	49.8	42.6	28.4	21.2	10.6	7.1	3.5
82.5°	60.4	49.8	42.6	35.5	32.0	24.9	17.8	10.6	7.1	3.5	3.5
85°	32.0	28.4	24.9	17.8	17.8	14.2	10.6	7.1	3.5	0.0	0.0
87.5°	17.8	14.2	10.6	7.1	7.1	3.5	3.5	3.5	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



TEST NUMBER: P252217

CATALOG NUMBER: LE\_6B60D010R EC6B60709727 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2
2.5°	3734.6	3734.6	3731.0	3773.6	3724.0	3773.6	3748.8	3773.6	3738.1	3734.6	3738.1
5°	3763.0	3773.6	3777.2	3816.2	3770.1	3830.5	3809.1	3830.5	3805.6	3812.8	3823.4
7.5°	3819.8	3837.5	3834.0	3883.8	3837.5	3905.0	3890.8	3922.8	3897.9	3905.0	3919.2
10°	3883.8	3905.0	3908.5	3958.2	3915.6	3997.2	3979.5	4015.0	3993.8	4004.4	4022.1
12.5°	3958.2	3983.1	3986.6	4043.5	3997.2	4082.5	4071.9	4107.4	4089.6	4100.2	4121.5
15°	4015.0	4050.5	4057.6	4114.5	4064.8	4153.5	4146.4	4192.5	4164.1	4181.9	4199.6
17.5°	4043.5	4075.4	4089.6	4142.9	4100.2	4189.0	4181.9	4221.0	4199.6	4217.4	4238.8
20°	4025.8	4064.8	4075.4	4128.6	4086.0	4174.8	4164.1	4203.2	4181.9	4196.1	4217.4
22.5°	3961.8	4000.9	4015.0	4064.8	4025.8	4107.4	4103.8	4139.2	4110.9	4128.6	4146.4
25°	3848.2	3890.8	3897.9	3944.0	3901.5	3986.6	3979.5	4018.6	3997.2	4008.0	4032.8
27.5°	3684.9	3734.6	3745.2	3784.2	3752.4	3823.4	3823.4	3855.2	3830.5	3830.5	3855.2
30°	3489.6	3539.4	3546.5	3578.4	3550.0	3613.9	3617.5	3649.4	3610.4	3631.6	3635.2
32.5°	3251.8	3283.8	3305.0	3333.5	3290.9	3372.5	3361.9	3386.8	3365.4	3365.4	3383.1
35°	2964.2	3003.2	3014.0	3049.5	3014.0	3077.9	3077.9	3092.0	3070.8	3070.8	3099.1
37.5°	2651.9	2680.2	2683.8	2719.2	2690.9	2744.1	2740.6	2751.2	2730.0	2744.1	2744.1
40°	2286.2	2307.5	2314.6	2332.4	2328.8	2367.9	2364.2	2371.4	2360.8	2364.2	2371.4
42.5°	1860.2	1888.6	1902.8	1917.0	1895.8	1949.0	1938.2	1949.0	1945.4	1949.0	1959.6
45°	1370.2	1391.6	1402.2	1405.8	1398.8	1430.6	1455.5	1434.2	1437.8	1430.6	1444.9
47.5°	990.5	994.0	986.9	1008.2	990.5	1004.6	1011.8	1015.2	994.0	990.5	1004.6
50°	678.0	695.8	671.0	681.6	678.0	692.2	685.1	688.8	667.4	678.0	671.0
52.5°	450.9	447.2	440.2	443.8	436.6	436.6	436.6	443.8	429.5	422.5	415.4
55°	273.4	266.2	252.0	248.5	248.5	252.0	245.0	237.9	237.9	234.2	234.2
57.5°	159.8	149.1	142.0	138.5	131.4	127.8	124.2	124.2	117.1	117.1	117.1
60°	88.8	78.1	71.0	63.9	63.9	60.4	56.8	53.2	53.2	53.2	49.8
62.5°	46.1	39.0	32.0	28.4	28.4	24.9	21.2	21.2	21.2	21.2	17.8
65°	32.0	24.9	21.2	17.8	17.8	14.2	14.2	14.2	14.2	14.2	14.2
67.5°	24.9	21.2	17.8	14.2	14.2	14.2	10.6	10.6	10.6	10.6	10.6
70°	21.2	14.2	14.2	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
72.5°	14.2	14.2	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
75°	10.6	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0
80°	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	0.0	0.0	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





TEST NUMBER: P252217

CATALOG NUMBER: LE\_6B60D010R EC6B60709727 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2	3713.2
2.5°	3770.1	3766.5	3770.1	3777.2	3763.0	3805.6	3784.2	3805.6
5°	3851.8	3855.2	3858.9	3869.5	3851.8	3905.0	3876.6	3908.5
7.5°	3958.2	3961.8	3965.4	3976.0	3965.4	4018.6	3986.6	4015.0
10°	4068.2	4075.4	4075.4	4093.1	4082.5	4132.2	4110.9	4146.4
12.5°	4171.2	4178.4	4185.5	4196.1	4189.0	4242.2	4224.5	4252.9
15°	4252.9	4267.1	4270.6	4284.9	4277.8	4334.5	4313.2	4341.6
17.5°	4292.0	4306.1	4306.1	4323.9	4316.8	4377.1	4348.8	4380.8
20°	4270.6	4281.2	4284.9	4302.6	4295.5	4355.9	4327.5	4366.5
22.5°	4203.2	4206.8	4210.2	4228.0	4224.5	4277.8	4252.9	4277.8
25°	4079.0	4089.6	4086.0	4100.2	4100.2	4142.9	4114.5	4135.8
27.5°	3901.5	3912.1	3912.1	3929.9	3915.6	3958.2	3929.9	3961.8
30°	3684.9	3695.5	3688.5	3702.6	3688.5	3731.0	3709.8	3720.4
32.5°	3425.8	3425.8	3429.2	3432.9	3425.8	3464.8	3443.5	3464.8
35°	3116.9	3124.0	3127.5	3131.1	3124.0	3152.4	3127.5	3141.8
37.5°	2769.0	2786.8	2783.2	2786.8	2776.1	2811.6	2790.2	2797.4
40°	2396.2	2396.2	2392.8	2399.8	2389.1	2417.5	2403.4	2410.5
42.5°	1963.1	1973.8	1959.6	1977.4	1949.0	1988.0	1973.8	1963.1
45°	1473.2	1459.0	1455.5	1459.0	1448.4	1452.0	1462.6	1455.5
47.5°	1004.6	1004.6	997.5	986.9	1001.1	1004.6	990.5	990.5
50°	674.5	674.5	667.4	663.9	671.0	667.4	660.2	671.0
52.5°	429.5	415.4	415.4	422.5	415.4	408.2	418.9	411.8
55°	234.2	227.2	227.2	234.2	227.2	227.2	223.6	230.8
57.5°	113.6	117.1	113.6	113.6	113.6	113.6	110.0	113.6
60°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
62.5°	21.2	21.2	17.8	17.8	17.8	17.8	17.8	17.8
65°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
67.5°	10.6	10.6	10.6	10.6	10.6	14.2	10.6	10.6
70°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
72.5°	10.6	10.6	14.2	14.2	14.2	14.2	14.2	14.2
75°	7.1	7.1	7.1	3.5	3.5	3.5	3.5	3.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)