

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: P252310

Luminaire Tested: **LE_6B60D010R EC6B60708027 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252310
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 EC6B60708027 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6600.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

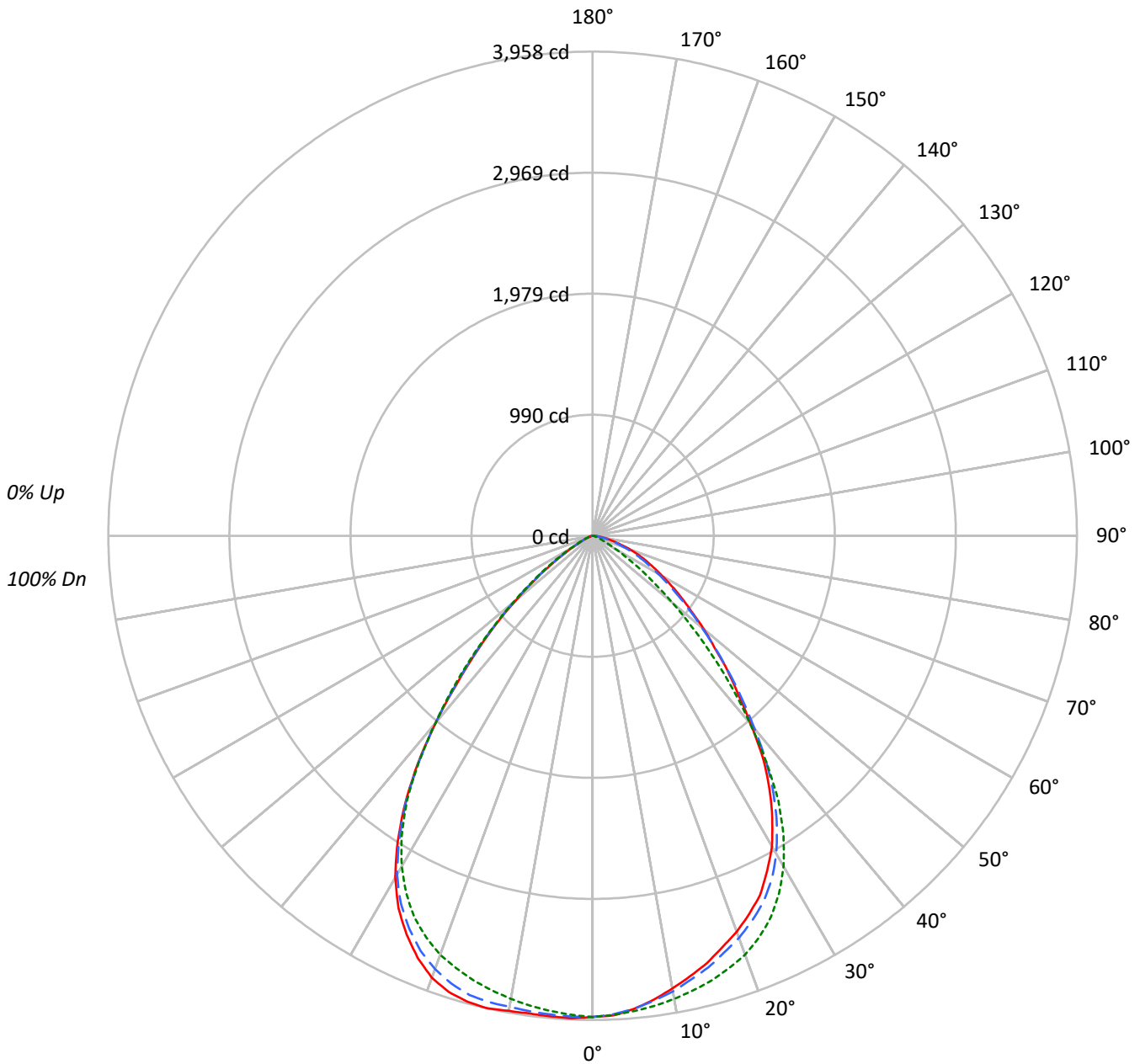
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	256657	256657	256657
5°	254218	255463	258259
10°	248970	254640	261245
15°	244205	254161	266352
20°	239150	253001	266866
25°	233260	247960	258901
30°	220840	235153	243033
35°	200552	210770	212658
40°	171166	170348	169548
45°	143784	127564	123625
50°	120070	86323	81989
55°	101061	52959	48102
60°	85544	27897	24165
65°	74083	14665	11732
70°	61632	9061	6333
75°	45499	5999	3579
80°	35692	3569	1803
85°	28445	3593	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	370.8	5.6
10°-20°	1061.6	16.1
20°-30°	1567.6	23.8
30°-40°	1615.5	24.5
40°-50°	1115.8	16.9
50°-60°	550.0	8.3
60°-70°	222.8	3.4
70°-80°	79.4	1.2
80°-90°	16.4	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°	2999.9	45.5
0°-40°	4615.5	69.9
0°-60°	6281.3	95.2
0°-90°	6600.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6600.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3934	3934	3934	3934	3934	
5°	3882	3882	3901	3929	3944	367
15°	3616	3654	3763	3886	3944	1018
25°	3240	3302	3445	3544	3597	1481
35°	2518	2580	2646	2661	2670	1560
45°	1558	1568	1383	1364	1340	1205
55°	888	855	466	437	423	803
65°	480	432	95	76	76	477
75°	180	152	24	14	14	203
85°	38	28	5	0	0	47
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°	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0
2.5°	3924.5	3910.2	3919.8	3900.8	3924.5	3900.8	3905.5	3910.2	3905.5	3910.2	3915.0
5°	3881.8	3867.5	3881.8	3858.0	3881.8	3867.5	3867.5	3872.2	3872.2	3877.0	3881.8
7.5°	3824.8	3810.5	3824.8	3801.0	3829.5	3815.2	3815.2	3824.8	3820.0	3824.8	3834.2
10°	3758.2	3739.2	3753.5	3739.2	3767.8	3748.8	3758.2	3758.2	3758.2	3772.5	3782.0
12.5°	3687.0	3668.0	3687.0	3663.1	3691.8	3677.5	3682.2	3696.5	3701.2	3710.8	3715.5
15°	3615.6	3591.9	3601.4	3587.1	3615.6	3601.4	3606.1	3625.1	3625.1	3639.4	3653.6
17.5°	3525.4	3506.4	3525.4	3506.4	3530.1	3520.6	3530.1	3544.4	3544.4	3558.6	3572.9
20°	3444.6	3425.6	3439.9	3425.6	3454.1	3439.9	3444.6	3463.6	3468.4	3482.6	3496.9
22.5°	3344.9	3330.6	3340.1	3325.9	3354.4	3344.9	3349.6	3368.6	3373.4	3382.9	3406.6
25°	3240.4	3211.9	3226.1	3216.6	3245.1	3230.9	3240.4	3259.4	3268.9	3283.1	3302.1
27.5°	3088.2	3074.0	3083.5	3083.5	3107.2	3093.0	3097.8	3116.8	3131.0	3145.2	3169.0
30°	2931.5	2907.8	2917.2	2922.0	2941.0	2931.5	2941.0	2960.0	2964.8	2983.8	3002.8
32.5°	2732.0	2722.5	2741.5	2732.0	2741.5	2741.5	2746.2	2760.5	2770.0	2779.5	2803.2
35°	2518.1	2499.1	2518.1	2508.6	2532.4	2518.1	2532.4	2546.6	2546.6	2565.6	2579.9
37.5°	2285.4	2261.6	2271.1	2271.1	2280.6	2275.9	2275.9	2299.6	2304.4	2318.6	2332.9
40°	2009.8	2000.2	2019.2	2014.5	2019.2	2019.2	2024.0	2038.2	2047.8	2052.5	2057.2
42.5°	1762.8	1767.5	1772.2	1772.2	1772.2	1772.2	1772.2	1791.2	1786.5	1800.8	1805.5
45°	1558.4	1539.4	1548.9	1544.1	1558.4	1544.1	1558.4	1572.6	1563.1	1577.4	1567.9
47.5°	1349.4	1349.4	1349.4	1344.6	1354.1	1349.4	1358.9	1363.6	1363.6	1363.6	1358.9
50°	1183.0	1168.8	1173.5	1173.5	1178.2	1173.5	1183.0	1187.8	1187.8	1178.2	1159.2
52.5°	1021.5	1016.8	1016.8	1026.2	1026.2	1021.5	1021.5	1021.5	1021.5	1007.2	997.8
55°	888.5	879.0	883.8	883.8	883.8	883.8	888.5	883.8	883.8	869.5	855.2
57.5°	769.8	760.2	760.2	760.2	765.0	760.2	760.2	760.2	755.5	741.2	722.1
60°	655.6	650.9	655.6	655.6	660.4	655.6	655.6	655.6	646.1	631.9	612.9
62.5°	560.6	560.6	560.6	565.4	565.4	560.6	560.6	555.9	551.1	532.1	513.1
65°	479.9	475.1	479.9	479.9	484.6	484.6	479.9	475.1	470.4	451.4	432.4
67.5°	399.1	394.4	399.1	399.1	403.9	399.1	399.1	399.1	384.9	375.4	356.4
70°	323.1	318.4	318.4	318.4	323.1	313.6	318.4	318.4	308.9	294.6	275.6
72.5°	247.1	247.1	247.1	247.1	247.1	247.1	242.2	242.2	232.8	218.5	209.0
75°	180.5	180.5	185.2	185.2	180.5	180.5	180.5	175.8	171.0	161.5	152.0
77.5°	133.0	133.0	133.0	133.0	128.2	128.2	128.2	123.5	118.8	114.0	104.5
80°	95.0	95.0	95.0	90.2	95.0	90.2	90.2	90.2	80.8	76.0	71.2
82.5°	66.5	61.8	61.8	61.8	61.8	61.8	61.8	57.0	57.0	52.2	47.5
85°	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	33.2	28.5	28.5
87.5°	19.0	23.8	23.8	23.8	23.8	23.8	23.8	19.0	19.0	19.0	14.2
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°	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0
2.5°	3915.0	3915.0	3924.5	3910.2	3934.0	3919.8	3915.0	3938.8	3924.5	3919.8	3929.2
5°	3881.8	3886.5	3891.2	3881.8	3905.5	3891.2	3891.2	3915.0	3905.5	3900.8	3915.0
7.5°	3839.0	3843.8	3853.2	3848.5	3867.5	3858.0	3862.8	3886.5	3877.0	3877.0	3891.2
10°	3786.8	3796.2	3805.8	3805.8	3829.5	3820.0	3820.0	3848.5	3839.0	3843.8	3862.8
12.5°	3725.0	3739.2	3753.5	3758.2	3782.0	3767.8	3772.5	3805.8	3801.0	3805.8	3824.8
15°	3658.4	3677.5	3691.8	3691.8	3720.2	3706.0	3720.2	3753.5	3744.0	3763.0	3786.8
17.5°	3582.4	3601.4	3620.4	3625.1	3653.6	3644.1	3663.1	3696.5	3696.5	3706.0	3734.5
20°	3511.1	3534.9	3544.4	3558.6	3587.1	3582.4	3591.9	3629.9	3629.9	3644.1	3672.8
22.5°	3416.1	3439.9	3458.9	3473.1	3496.9	3496.9	3511.1	3544.4	3544.4	3553.9	3582.4
25°	3311.6	3340.1	3354.4	3368.6	3392.4	3387.6	3401.9	3430.4	3435.1	3444.6	3473.1
27.5°	3178.6	3202.4	3221.4	3230.9	3264.1	3245.1	3259.4	3292.6	3287.9	3297.4	3321.1
30°	3012.2	3036.0	3055.0	3055.0	3083.5	3083.5	3097.8	3112.0	3112.0	3121.5	3140.5
32.5°	2817.5	2846.0	2846.0	2860.2	2879.2	2860.2	2879.2	2898.2	2888.8	2903.0	2917.2
35°	2594.1	2608.4	2613.1	2613.1	2627.4	2622.6	2617.9	2632.1	2622.6	2646.4	2660.6
37.5°	2323.4	2342.4	2332.9	2342.4	2337.6	2323.4	2323.4	2347.1	2328.1	2332.9	2347.1
40°	2062.0	2062.0	2057.2	2033.5	2038.2	2024.0	2019.2	2024.0	2005.0	2000.2	2019.2
42.5°	1791.2	1786.5	1772.2	1739.0	1743.8	1720.0	1700.9	1700.9	1691.4	1686.6	1691.4
45°	1548.9	1534.6	1510.9	1472.9	1463.4	1444.4	1406.4	1396.9	1382.6	1382.6	1387.4
47.5°	1325.6	1306.6	1268.6	1225.9	1202.0	1178.2	1140.2	1126.0	1102.2	1092.8	1102.2
50°	1140.2	1107.0	1059.5	997.8	974.0	945.5	907.5	883.8	860.0	850.5	845.8
52.5°	969.2	921.8	874.2	798.2	779.2	750.8	698.4	674.6	650.9	631.9	631.9
55°	822.0	779.2	712.6	641.4	612.9	584.4	532.1	498.9	475.1	465.6	456.1
57.5°	688.9	641.4	579.6	503.6	475.1	446.6	394.4	361.1	337.4	323.1	313.6
60°	579.6	527.4	465.6	399.1	365.9	337.4	285.1	251.9	228.0	213.8	204.2
62.5°	475.1	432.4	370.6	308.9	280.4	251.9	209.0	175.8	152.0	142.5	128.2
65°	399.1	356.4	299.4	247.1	223.2	194.8	156.8	128.2	109.2	95.0	85.5
67.5°	323.1	289.9	242.2	194.8	171.0	152.0	118.8	95.0	76.0	66.5	61.8
70°	256.6	223.2	185.2	147.2	133.0	114.0	90.2	66.5	57.0	47.5	42.8
72.5°	190.0	166.2	137.8	109.2	95.0	85.5	61.8	52.2	38.0	33.2	28.5
75°	137.8	118.8	99.8	76.0	66.5	61.8	47.5	33.2	28.5	23.8	19.0
77.5°	95.0	85.5	66.5	52.2	47.5	42.8	33.2	23.8	19.0	14.2	14.2
80°	61.8	52.2	42.8	33.2	33.2	28.5	19.0	14.2	14.2	9.5	9.5
82.5°	38.0	33.2	28.5	23.8	19.0	19.0	14.2	9.5	9.5	4.8	4.8
85°	23.8	19.0	14.2	14.2	9.5	9.5	9.5	4.8	4.8	4.8	4.8
87.5°	9.5	9.5	9.5	4.8	4.8	4.8	4.8	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°	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0
2.5°	3929.2	3929.2	3938.8	3924.5	3934.0	3934.0	3943.5	3924.5	3934.0	3938.8	3948.2
5°	3910.2	3915.0	3924.5	3919.8	3924.5	3924.5	3934.0	3910.2	3929.2	3929.2	3943.5
7.5°	3891.2	3891.2	3900.8	3896.0	3905.5	3910.2	3919.8	3900.8	3919.8	3919.8	3934.0
10°	3867.5	3867.5	3881.8	3877.0	3891.2	3896.0	3910.2	3891.2	3910.2	3915.0	3929.2
12.5°	3834.2	3839.0	3853.2	3853.2	3867.5	3877.0	3891.2	3881.8	3905.5	3910.2	3929.2
15°	3796.2	3805.8	3824.8	3820.0	3834.2	3848.5	3867.5	3853.2	3886.5	3896.0	3915.0
17.5°	3748.8	3758.2	3772.5	3772.5	3786.8	3796.2	3820.0	3810.5	3839.0	3843.8	3867.5
20°	3677.5	3691.8	3710.8	3706.0	3720.2	3729.8	3748.8	3739.2	3767.8	3777.2	3801.0
22.5°	3591.9	3601.4	3615.6	3615.6	3629.9	3639.4	3658.4	3644.1	3672.8	3677.5	3696.5
25°	3477.9	3487.4	3496.9	3501.6	3515.9	3520.6	3530.1	3520.6	3544.4	3549.1	3572.9
27.5°	3330.6	3335.4	3349.6	3349.6	3359.1	3363.9	3378.1	3359.1	3392.4	3392.4	3406.6
30°	3154.8	3150.0	3169.0	3159.5	3169.0	3169.0	3183.4	3173.8	3197.6	3188.1	3202.4
32.5°	2922.0	2931.5	2931.5	2922.0	2941.0	2936.2	2936.2	2926.8	2941.0	2945.8	2955.2
35°	2651.1	2665.4	2665.4	2670.1	2674.9	2660.6	2665.4	2636.9	2660.6	2665.4	2670.1
37.5°	2356.6	2342.4	2351.9	2337.6	2361.4	2332.9	2332.9	2313.9	2332.9	2332.9	2337.6
40°	2019.2	2014.5	2024.0	2014.5	2009.8	2005.0	1995.5	1981.2	2000.2	1990.8	2005.0
42.5°	1700.9	1696.1	1696.1	1686.6	1681.9	1681.9	1672.4	1662.9	1658.1	1658.1	1681.9
45°	1373.1	1382.6	1373.1	1368.4	1377.9	1368.4	1373.1	1354.1	1363.6	1354.1	1363.6
47.5°	1097.5	1102.2	1092.8	1083.2	1097.5	1083.2	1083.2	1069.0	1088.0	1088.0	1078.5
50°	850.5	845.8	836.2	845.8	841.0	841.0	841.0	826.8	836.2	822.0	831.5
52.5°	627.1	622.4	622.4	617.6	622.4	617.6	617.6	612.9	612.9	608.1	612.9
55°	456.1	451.4	441.9	441.9	441.9	446.6	441.9	437.1	437.1	432.4	437.1
57.5°	308.9	299.4	299.4	299.4	299.4	294.6	294.6	289.9	294.6	289.9	294.6
60°	199.5	199.5	190.0	190.0	190.0	190.0	190.0	185.2	190.0	190.0	190.0
62.5°	123.5	123.5	118.8	114.0	118.8	114.0	114.0	114.0	118.8	114.0	118.8
65°	80.8	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
67.5°	57.0	52.2	52.2	52.2	52.2	52.2	52.2	47.5	52.2	52.2	52.2
70°	38.0	38.0	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
72.5°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
75°	19.0	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
77.5°	14.2	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
80°	9.5	9.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
85°	4.8	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	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
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: P252310

CATALOG NUMBER: LE_6B60D010R EC6B60708027 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0	3934.0
2.5°	3934.0	3938.8	3929.2	3934.0	3924.5	3934.0	3938.8	3948.2
5°	3924.5	3929.2	3919.8	3929.2	3919.8	3929.2	3934.0	3943.5
7.5°	3915.0	3924.5	3915.0	3924.5	3915.0	3924.5	3929.2	3938.8
10°	3915.0	3929.2	3919.8	3934.0	3919.8	3929.2	3938.8	3943.5
12.5°	3915.0	3929.2	3924.5	3934.0	3929.2	3938.8	3948.2	3957.8
15°	3905.5	3919.8	3910.2	3924.5	3919.8	3924.5	3943.5	3943.5
17.5°	3853.2	3867.5	3867.5	3877.0	3877.0	3891.2	3900.8	3910.2
20°	3786.8	3801.0	3796.2	3810.5	3810.5	3824.8	3834.2	3843.8
22.5°	3687.0	3706.0	3701.2	3715.5	3710.8	3720.2	3739.2	3734.5
25°	3558.6	3582.4	3577.6	3587.1	3582.4	3582.4	3591.9	3596.6
27.5°	3401.9	3416.1	3411.4	3420.9	3411.4	3420.9	3430.4	3435.1
30°	3197.6	3207.1	3202.4	3207.1	3202.4	3211.9	3216.6	3226.1
32.5°	2950.5	2964.8	2950.5	2960.0	2955.2	2955.2	2974.2	2964.8
35°	2655.9	2660.6	2665.4	2665.4	2655.9	2660.6	2670.1	2670.1
37.5°	2328.1	2351.9	2323.4	2337.6	2332.9	2332.9	2332.9	2347.1
40°	1986.0	1990.8	1981.2	1981.2	1981.2	1976.5	1995.5	1990.8
42.5°	1662.9	1667.6	1662.9	1648.6	1653.4	1653.4	1667.6	1648.6
45°	1349.4	1358.9	1354.1	1354.1	1344.6	1344.6	1349.4	1339.9
47.5°	1069.0	1078.5	1064.2	1069.0	1059.5	1069.0	1064.2	1073.8
50°	812.5	822.0	817.2	822.0	822.0	812.5	826.8	807.8
52.5°	608.1	612.9	608.1	603.4	598.6	598.6	608.1	603.4
55°	432.4	427.6	427.6	427.6	432.4	432.4	427.6	422.9
57.5°	289.9	289.9	285.1	285.1	289.9	280.4	285.1	280.4
60°	185.2	185.2	185.2	185.2	180.5	185.2	185.2	185.2
62.5°	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0
65°	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
67.5°	47.5	52.2	52.2	52.2	47.5	47.5	47.5	47.5
70°	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
72.5°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
75°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
77.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.8	4.8	4.8	4.8	4.8	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)