

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: P252313

Luminaire Tested: **LE_6B60D010R EC6B60708040 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252313
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 EC6B60708040 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7146.2 lumens
Efficiency: N/A
Efficacy: 114.3 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

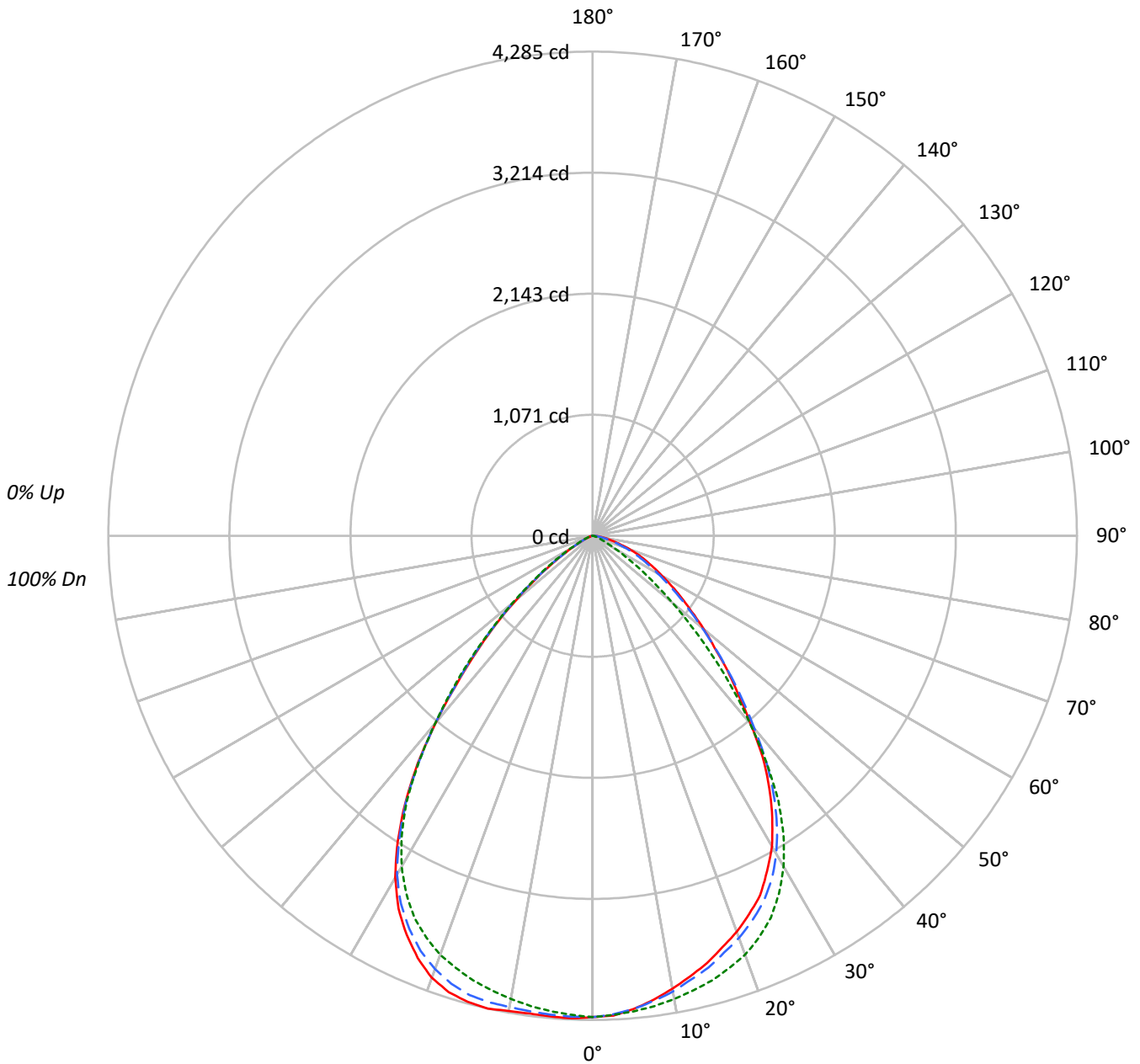
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	277899	277899	277899
5°	275254	276603	279635
10°	269573	275714	282868
15°	264420	275193	288398
20°	258951	273948	288951
25°	252560	268490	280339
30°	239116	254619	263147
35°	217150	228220	230259
40°	185329	184460	183574
45°	155687	138119	133857
50°	130017	93468	88759
55°	109421	57338	52083
60°	92629	30206	26175
65°	80212	15885	12689
70°	66744	9824	6867
75°	49280	6503	3882
80°	38660	3832	1916
85°	30765	3818	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	401.4	5.6
10°-20°	1149.4	16.1
20°-30°	1697.3	23.8
30°-40°	1749.2	24.5
40°-50°	1208.2	16.9
50°-60°	595.5	8.3
60°-70°	241.3	3.4
70°-80°	86.0	1.2
80°-90°	17.7	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°	3248.2	45.5
0°-40°	4997.5	69.9
0°-60°	6801.2	95.2
0°-90°	7146.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7146.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4260	4260	4260	4260	4260	
5°	4203	4203	4224	4254	4270	397
15°	3915	3956	4074	4208	4270	1102
25°	3508	3575	3730	3838	3894	1604
35°	2726	2793	2866	2881	2891	1689
45°	1687	1698	1497	1476	1451	1304
55°	962	926	504	473	458	869
65°	520	468	103	82	82	516
75°	196	165	26	15	15	219
85°	41	31	5	0	0	50
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°	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6
2.5°	4249.4	4233.9	4244.1	4223.6	4249.4	4223.6	4228.8	4233.9	4228.8	4233.9	4239.0
5°	4203.0	4187.6	4203.0	4177.2	4203.0	4187.6	4187.6	4192.8	4192.8	4197.9	4203.0
7.5°	4141.2	4125.9	4141.2	4115.5	4146.4	4131.0	4131.0	4141.2	4136.1	4141.2	4151.6
10°	4069.2	4048.6	4064.1	4048.6	4079.5	4059.0	4069.2	4069.2	4069.2	4084.8	4095.0
12.5°	3992.1	3971.5	3992.1	3966.4	3997.2	3981.8	3987.0	4002.4	4007.5	4017.9	4023.0
15°	3914.9	3889.2	3899.5	3884.0	3914.9	3899.5	3904.6	3925.2	3925.2	3940.6	3956.1
17.5°	3817.1	3796.6	3817.1	3796.6	3822.4	3812.0	3822.4	3837.8	3837.8	3853.2	3868.6
20°	3729.8	3709.1	3724.6	3709.1	3740.0	3724.6	3729.8	3750.2	3755.5	3770.9	3786.4
22.5°	3621.8	3606.2	3616.5	3601.1	3632.0	3621.8	3626.9	3647.4	3652.5	3662.9	3688.6
25°	3508.5	3477.6	3493.1	3482.8	3513.6	3498.2	3508.5	3529.1	3539.4	3554.9	3575.4
27.5°	3343.9	3328.5	3338.8	3338.8	3364.5	3349.0	3354.1	3374.8	3390.2	3405.6	3431.4
30°	3174.1	3148.4	3158.8	3163.9	3184.4	3174.1	3184.4	3205.0	3210.1	3230.8	3251.2
32.5°	2958.0	2947.8	2968.4	2958.0	2968.4	2968.4	2973.5	2988.9	2999.2	3009.5	3035.2
35°	2726.5	2706.0	2726.5	2716.2	2742.0	2726.5	2742.0	2757.4	2757.4	2778.0	2793.4
37.5°	2474.5	2448.8	2459.0	2459.0	2469.4	2464.2	2464.2	2489.9	2495.0	2510.5	2525.9
40°	2176.1	2165.9	2186.4	2181.2	2186.4	2186.4	2191.5	2207.0	2217.2	2222.4	2227.5
42.5°	1908.6	1913.8	1918.9	1918.9	1918.9	1918.9	1918.9	1939.5	1934.4	1949.8	1954.9
45°	1687.4	1666.8	1677.1	1672.0	1687.4	1672.0	1687.4	1702.9	1692.5	1708.0	1697.6
47.5°	1461.0	1461.0	1461.0	1455.9	1466.1	1461.0	1471.4	1476.5	1476.5	1476.5	1471.4
50°	1281.0	1265.5	1270.6	1270.6	1275.9	1270.6	1281.0	1286.1	1286.1	1275.9	1255.2
52.5°	1106.0	1100.9	1100.9	1111.2	1111.2	1106.0	1106.0	1106.0	1106.0	1090.6	1080.4
55°	962.0	951.8	956.9	956.9	956.9	956.9	962.0	956.9	956.9	941.4	926.0
57.5°	833.4	823.1	823.1	823.1	828.2	823.1	823.1	823.1	818.0	802.5	782.0
60°	709.9	704.8	709.9	709.9	715.1	709.9	709.9	709.9	699.6	684.2	663.6
62.5°	607.0	607.0	607.0	612.2	612.2	607.0	607.0	601.9	596.8	576.1	555.6
65°	519.6	514.5	519.6	519.6	524.8	524.8	519.6	514.5	509.2	488.8	468.1
67.5°	432.1	427.0	432.1	432.1	437.2	432.1	432.1	432.1	416.8	406.4	385.9
70°	349.9	344.6	344.6	344.6	349.9	339.5	344.6	344.6	334.4	319.0	298.4
72.5°	267.5	267.5	267.5	267.5	267.5	267.5	262.4	262.4	252.1	236.6	226.4
75°	195.5	195.5	200.6	200.6	195.5	195.5	195.5	190.4	185.2	174.9	164.6
77.5°	144.0	144.0	144.0	144.0	138.9	138.9	138.9	133.8	128.6	123.5	113.1
80°	102.9	102.9	102.9	97.8	102.9	97.8	97.8	97.8	87.5	82.2	77.1
82.5°	72.0	66.9	66.9	66.9	66.9	66.9	66.9	61.8	61.8	56.6	51.5
85°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	36.0	30.9	30.9
87.5°	20.6	25.8	25.8	25.8	25.8	25.8	25.8	20.6	20.6	20.6	15.4
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°	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6
2.5°	4239.0	4239.0	4249.4	4233.9	4259.6	4244.1	4239.0	4264.8	4249.4	4244.1	4254.5
5°	4203.0	4208.1	4213.2	4203.0	4228.8	4213.2	4213.2	4239.0	4228.8	4223.6	4239.0
7.5°	4156.8	4161.9	4172.1	4167.0	4187.6	4177.2	4182.5	4208.1	4197.9	4197.9	4213.2
10°	4100.1	4110.4	4120.8	4120.8	4146.4	4136.1	4136.1	4167.0	4156.8	4161.9	4182.5
12.5°	4033.2	4048.6	4064.1	4069.2	4095.0	4079.5	4084.8	4120.8	4115.5	4120.8	4141.2
15°	3961.2	3981.8	3997.2	3997.2	4028.1	4012.6	4028.1	4064.1	4053.9	4074.4	4100.1
17.5°	3878.9	3899.5	3920.1	3925.2	3956.1	3945.8	3966.4	4002.4	4002.4	4012.6	4043.5
20°	3801.8	3827.5	3837.8	3853.2	3884.0	3878.9	3889.2	3930.4	3930.4	3945.8	3976.6
22.5°	3698.9	3724.6	3745.1	3760.6	3786.4	3786.4	3801.8	3837.8	3837.8	3848.0	3878.9
25°	3585.6	3616.5	3632.0	3647.4	3673.1	3668.0	3683.4	3714.2	3719.4	3729.8	3760.6
27.5°	3441.6	3467.4	3487.9	3498.2	3534.2	3513.6	3529.1	3565.1	3560.0	3570.2	3596.0
30°	3261.6	3287.2	3307.9	3307.9	3338.8	3338.8	3354.1	3369.6	3369.6	3379.9	3400.5
32.5°	3050.6	3081.5	3081.5	3097.0	3117.5	3097.0	3117.5	3138.1	3127.9	3143.2	3158.8
35°	2808.9	2824.2	2829.5	2829.5	2844.9	2839.8	2834.6	2850.0	2839.8	2865.5	2880.9
37.5°	2515.6	2536.2	2525.9	2536.2	2531.1	2515.6	2515.6	2541.4	2520.8	2525.9	2541.4
40°	2232.8	2232.8	2227.5	2201.9	2207.0	2191.5	2186.4	2191.5	2171.0	2165.9	2186.4
42.5°	1939.5	1934.4	1918.9	1882.9	1888.0	1862.2	1841.8	1841.8	1831.4	1826.2	1831.4
45°	1677.1	1661.6	1635.9	1594.8	1584.5	1563.9	1522.8	1512.5	1497.0	1497.0	1502.1
47.5°	1435.2	1414.8	1373.6	1327.2	1301.5	1275.9	1234.6	1219.2	1193.5	1183.2	1193.5
50°	1234.6	1198.6	1147.2	1080.4	1054.6	1023.8	982.6	956.9	931.1	920.9	915.8
52.5°	1049.5	998.0	946.6	864.2	843.8	812.9	756.2	730.5	704.8	684.2	684.2
55°	890.0	843.8	771.6	694.5	663.6	632.8	576.1	540.1	514.5	504.1	493.9
57.5°	746.0	694.5	627.6	545.2	514.5	483.6	427.0	391.0	365.2	349.9	339.5
60°	627.6	571.0	504.1	432.1	396.1	365.2	308.6	272.6	246.9	231.5	221.2
62.5°	514.5	468.1	401.2	334.4	303.5	272.6	226.4	190.4	164.6	154.4	138.9
65°	432.1	385.9	324.1	267.5	241.8	210.9	169.8	138.9	118.4	102.9	92.6
67.5°	349.9	313.8	262.4	210.9	185.2	164.6	128.6	102.9	82.2	72.0	66.9
70°	277.8	241.8	200.6	159.5	144.0	123.5	97.8	72.0	61.8	51.5	46.2
72.5°	205.8	180.0	149.2	118.4	102.9	92.6	66.9	56.6	41.1	36.0	30.9
75°	149.2	128.6	108.0	82.2	72.0	66.9	51.5	36.0	30.9	25.8	20.6
77.5°	102.9	92.6	72.0	56.6	51.5	46.2	36.0	25.8	20.6	15.4	15.4
80°	66.9	56.6	46.2	36.0	36.0	30.9	20.6	15.4	15.4	10.2	10.2
82.5°	41.1	36.0	30.9	25.8	20.6	20.6	15.4	10.2	10.2	5.1	5.1
85°	25.8	20.6	15.4	15.4	10.2	10.2	10.2	5.1	5.1	5.1	5.1
87.5°	10.2	10.2	10.2	5.1	5.1	5.1	5.1	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°	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6
2.5°	4254.5	4254.5	4264.8	4249.4	4259.6	4259.6	4269.9	4249.4	4259.6	4264.8	4275.0
5°	4233.9	4239.0	4249.4	4244.1	4249.4	4249.4	4259.6	4233.9	4254.5	4254.5	4269.9
7.5°	4213.2	4213.2	4223.6	4218.5	4228.8	4233.9	4244.1	4223.6	4244.1	4244.1	4259.6
10°	4187.6	4187.6	4203.0	4197.9	4213.2	4218.5	4233.9	4213.2	4233.9	4239.0	4254.5
12.5°	4151.6	4156.8	4172.1	4172.1	4187.6	4197.9	4213.2	4203.0	4228.8	4233.9	4254.5
15°	4110.4	4120.8	4141.2	4136.1	4151.6	4167.0	4187.6	4172.1	4208.1	4218.5	4239.0
17.5°	4059.0	4069.2	4084.8	4084.8	4100.1	4110.4	4136.1	4125.9	4156.8	4161.9	4187.6
20°	3981.8	3997.2	4017.9	4012.6	4028.1	4038.4	4059.0	4048.6	4079.5	4089.9	4115.5
22.5°	3889.2	3899.5	3914.9	3914.9	3930.4	3940.6	3961.2	3945.8	3976.6	3981.8	4002.4
25°	3765.8	3776.0	3786.4	3791.5	3806.9	3812.0	3822.4	3812.0	3837.8	3842.9	3868.6
27.5°	3606.2	3611.4	3626.9	3626.9	3637.1	3642.2	3657.8	3637.1	3673.1	3673.1	3688.6
30°	3415.9	3410.8	3431.4	3421.0	3431.4	3431.4	3446.8	3436.5	3462.2	3451.9	3467.4
32.5°	3163.9	3174.1	3174.1	3163.9	3184.4	3179.2	3179.2	3169.0	3184.4	3189.5	3199.9
35°	2870.6	2886.0	2886.0	2891.1	2896.4	2880.9	2886.0	2855.1	2880.9	2886.0	2891.1
37.5°	2551.6	2536.2	2546.5	2531.1	2556.8	2525.9	2525.9	2505.4	2525.9	2525.9	2531.1
40°	2186.4	2181.2	2191.5	2181.2	2176.1	2171.0	2160.6	2145.2	2165.9	2155.5	2171.0
42.5°	1841.8	1836.6	1836.6	1826.2	1821.1	1821.1	1810.9	1800.5	1795.4	1795.4	1821.1
45°	1486.8	1497.0	1486.8	1481.6	1491.9	1481.6	1486.8	1466.1	1476.5	1466.1	1476.5
47.5°	1188.4	1193.5	1183.2	1172.9	1188.4	1172.9	1172.9	1157.5	1178.1	1178.1	1167.8
50°	920.9	915.8	905.4	915.8	910.6	910.6	910.6	895.1	905.4	890.0	900.2
52.5°	679.1	673.9	673.9	668.8	673.9	668.8	668.8	663.6	663.6	658.5	663.6
55°	493.9	488.8	478.4	478.4	478.4	483.6	478.4	473.2	473.2	468.1	473.2
57.5°	334.4	324.1	324.1	324.1	324.1	319.0	319.0	313.8	319.0	313.8	319.0
60°	216.1	216.1	205.8	205.8	205.8	205.8	205.8	200.6	205.8	205.8	205.8
62.5°	133.8	133.8	128.6	123.5	128.6	123.5	123.5	123.5	128.6	123.5	128.6
65°	87.5	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
67.5°	61.8	56.6	56.6	56.6	56.6	56.6	56.6	51.5	56.6	56.6	56.6
70°	41.1	41.1	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
72.5°	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8
75°	20.6	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
77.5°	15.4	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
80°	10.2	10.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
82.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
85°	5.1	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	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
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: P252313

CATALOG NUMBER: LE_6B60D010R EC6B60708040 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6	4259.6
2.5°	4259.6	4264.8	4254.5	4259.6	4249.4	4259.6	4264.8	4275.0
5°	4249.4	4254.5	4244.1	4254.5	4244.1	4254.5	4259.6	4269.9
7.5°	4239.0	4249.4	4239.0	4249.4	4239.0	4249.4	4254.5	4264.8
10°	4239.0	4254.5	4244.1	4259.6	4244.1	4254.5	4264.8	4269.9
12.5°	4239.0	4254.5	4249.4	4259.6	4254.5	4264.8	4275.0	4285.4
15°	4228.8	4244.1	4233.9	4249.4	4244.1	4249.4	4269.9	4269.9
17.5°	4172.1	4187.6	4187.6	4197.9	4197.9	4213.2	4223.6	4233.9
20°	4100.1	4115.5	4110.4	4125.9	4125.9	4141.2	4151.6	4161.9
22.5°	3992.1	4012.6	4007.5	4023.0	4017.9	4028.1	4048.6	4043.5
25°	3853.2	3878.9	3873.8	3884.0	3878.9	3878.9	3889.2	3894.4
27.5°	3683.4	3698.9	3693.8	3704.0	3693.8	3704.0	3714.2	3719.4
30°	3462.2	3472.5	3467.4	3472.5	3467.4	3477.6	3482.8	3493.1
32.5°	3194.8	3210.1	3194.8	3205.0	3199.9	3199.9	3220.4	3210.1
35°	2875.8	2880.9	2886.0	2886.0	2875.8	2880.9	2891.1	2891.1
37.5°	2520.8	2546.5	2515.6	2531.1	2525.9	2525.9	2525.9	2541.4
40°	2150.4	2155.5	2145.2	2145.2	2145.2	2140.1	2160.6	2155.5
42.5°	1800.5	1805.8	1800.5	1785.1	1790.2	1790.2	1805.8	1785.1
45°	1461.0	1471.4	1466.1	1466.1	1455.9	1455.9	1461.0	1450.8
47.5°	1157.5	1167.8	1152.4	1157.5	1147.2	1157.5	1152.4	1162.6
50°	879.8	890.0	884.9	890.0	890.0	879.8	895.1	874.5
52.5°	658.5	663.6	658.5	653.4	648.2	648.2	658.5	653.4
55°	468.1	463.0	463.0	463.0	468.1	468.1	463.0	457.9
57.5°	313.8	313.8	308.6	308.6	313.8	303.5	308.6	303.5
60°	200.6	200.6	200.6	200.6	195.5	200.6	200.6	200.6
62.5°	123.5	123.5	123.5	123.5	123.5	123.5	123.5	123.5
65°	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
67.5°	51.5	56.6	56.6	56.6	51.5	51.5	51.5	51.5
70°	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
72.5°	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8
75°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
77.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
80°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
82.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	5.1	5.1	5.1	5.1	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)