

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: P252216

Luminaire Tested: **LE_6B60D010R EC6B60709050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252216
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 EC6B60709050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8281.3 lumens
Efficiency: N/A
Efficacy: 132.5 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

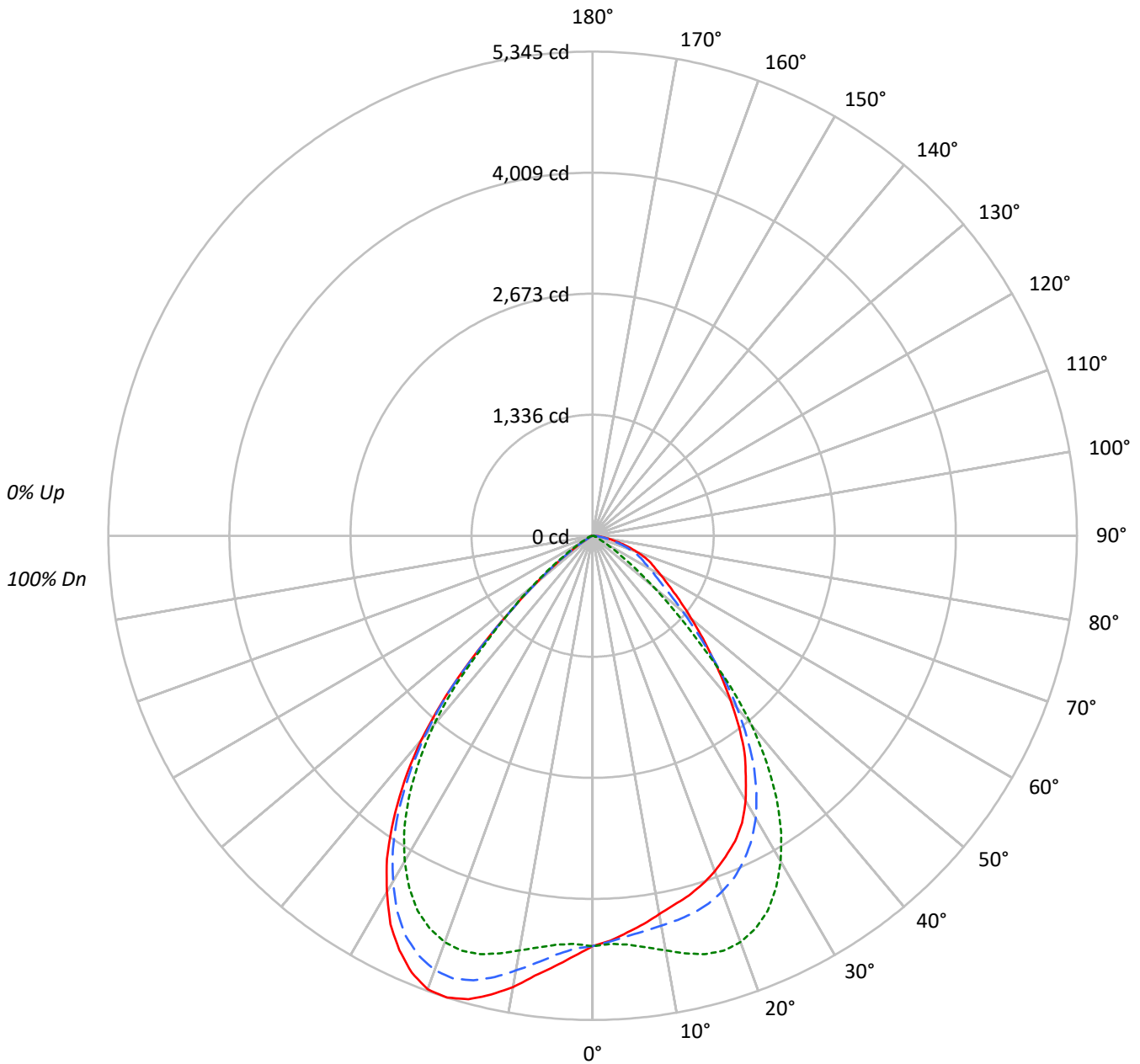
Input Watts (W): 62.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	295573	295573	295573
5°	287906	296702	312308
10°	280901	307883	335137
15°	277625	322973	357777
20°	273649	331378	369876
25°	267820	328936	363229
30°	254506	312588	341946
35°	232847	281829	305284
40°	201408	232758	250463
45°	169840	152651	163852
50°	144186	88363	83085
55°	125129	42369	32019
60°	113023	19781	7907
65°	109666	11362	2686
70°	98313	9080	2480
75°	80789	6554	1109
80°	60188	3231	0
85°	51800	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	437.6	5.3
10°-20°	1333.7	16.1
20°-30°	2037.7	24.6
30°-40°	2131.3	25.7
40°-50°	1382.6	16.7
50°-60°	548.9	6.6
60°-70°	260.4	3.1
70°-80°	123.8	1.5
80°-90°	25.3	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°	3809.0	46.0
0°-40°	5940.2	71.7
0°-60°	7871.7	95.1
0°-90°	8281.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8281.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4530	4530	4530	4530	4530	
5°	4396	4435	4530	4643	4769	415
15°	4110	4310	4782	5081	5297	1158
25°	3720	3954	4570	4877	5046	1704
35°	2924	3101	3539	3746	3833	1808
45°	1841	1824	1654	1754	1776	1432
55°	1100	936	372	290	282	997
65°	710	589	74	17	17	694
75°	320	260	26	9	4	346
85°	69	43	0	0	0	81
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°	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5
2.5°	4474.2	4482.9	4435.2	4422.2	4456.9	4469.9	4474.2	4461.2	4465.5	4482.9	4482.9
5°	4396.2	4404.9	4361.6	4348.6	4383.2	4391.9	4404.9	4400.5	4413.5	4439.5	4435.2
7.5°	4322.6	4335.6	4288.0	4270.6	4313.9	4335.6	4344.2	4344.2	4361.6	4396.2	4400.5
10°	4240.2	4257.6	4214.4	4205.6	4253.2	4275.0	4279.2	4288.0	4313.9	4361.6	4370.2
12.5°	4171.0	4188.4	4158.0	4145.0	4197.0	4218.6	4227.2	4244.6	4275.0	4335.6	4344.2
15°	4110.4	4123.4	4088.8	4080.0	4132.0	4158.0	4162.4	4188.4	4227.2	4296.6	4309.6
17.5°	4032.4	4041.1	4015.1	4006.4	4058.4	4084.4	4088.8	4119.0	4166.6	4236.0	4257.6
20°	3941.5	3950.1	3924.1	3915.5	3967.4	3997.8	4002.1	4028.1	4084.4	4158.0	4179.6
22.5°	3833.1	3850.5	3820.1	3811.5	3863.5	3889.5	3902.5	3924.1	3980.4	4054.0	4084.4
25°	3720.5	3720.5	3698.9	3694.6	3742.2	3772.5	3768.2	3798.5	3854.9	3928.5	3954.5
27.5°	3573.2	3569.0	3547.2	3543.0	3595.0	3620.9	3612.2	3642.6	3694.6	3768.2	3794.1
30°	3378.4	3387.0	3356.8	3348.1	3391.4	3434.8	3430.4	3460.6	3512.6	3582.0	3599.2
32.5°	3144.5	3153.1	3148.9	3135.9	3174.9	3196.5	3209.5	3231.1	3274.4	3348.1	3365.4
35°	2923.6	2910.6	2893.2	2893.2	2932.2	2966.9	2953.9	2979.9	3023.2	3096.9	3101.1
37.5°	2650.8	2646.4	2637.8	2629.1	2672.4	2681.0	2685.4	2702.8	2741.6	2802.4	2793.6
40°	2364.9	2369.2	2364.9	2347.5	2373.5	2408.1	2403.9	2412.5	2447.1	2490.5	2477.5
42.5°	2096.4	2096.4	2096.4	2079.0	2109.4	2126.6	2135.2	2131.0	2139.6	2178.6	2161.2
45°	1840.8	1845.1	1840.8	1836.5	1840.8	1849.5	1840.8	1836.5	1836.5	1849.5	1823.5
47.5°	1619.9	1619.9	1606.9	1593.9	1606.9	1611.2	1598.2	1585.2	1580.9	1576.6	1533.2
50°	1420.6	1416.4	1412.0	1390.4	1403.4	1407.6	1390.4	1381.6	1364.4	1342.8	1290.8
52.5°	1247.4	1243.1	1238.8	1217.1	1225.8	1230.1	1212.8	1195.4	1173.8	1156.5	1091.5
55°	1100.1	1095.8	1095.8	1082.9	1074.1	1082.9	1065.5	1052.5	1022.1	1000.5	935.5
57.5°	974.5	974.5	965.9	952.9	957.2	957.2	939.9	922.5	896.6	870.6	818.6
60°	866.2	866.2	866.2	853.2	853.2	853.2	844.6	827.2	805.6	779.6	727.6
62.5°	779.6	779.6	775.2	762.2	766.6	766.6	758.0	740.6	719.0	701.6	649.8
65°	710.4	710.4	710.4	697.4	697.4	701.6	693.0	675.6	658.4	636.8	589.0
67.5°	623.8	619.4	619.4	610.8	615.0	619.4	610.8	597.8	576.0	563.1	519.8
70°	515.4	519.8	524.1	511.1	515.4	515.4	511.1	498.1	485.1	472.1	433.1
72.5°	420.1	420.1	415.8	411.5	411.5	415.8	407.1	394.1	385.5	376.9	346.5
75°	320.5	316.1	320.5	311.9	311.9	311.9	303.2	298.9	294.5	281.5	259.9
77.5°	233.9	229.5	229.5	220.9	225.2	225.2	220.9	212.2	203.6	199.2	181.9
80°	160.2	160.2	160.2	155.9	155.9	151.6	151.6	147.2	138.6	134.2	125.6
82.5°	108.2	108.2	108.2	104.0	104.0	104.0	99.6	95.2	91.0	86.6	78.0
85°	69.2	69.2	69.2	65.0	65.0	65.0	60.6	60.6	56.2	52.0	43.4
87.5°	39.0	39.0	39.0	34.6	34.6	34.6	34.6	34.6	30.4	26.0	21.6
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°	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5
2.5°	4513.1	4452.5	4491.5	4491.5	4478.5	4513.1	4534.9	4552.1	4547.9	4508.9	4504.5
5°	4478.5	4426.5	4469.9	4474.2	4461.2	4508.9	4539.1	4560.9	4565.1	4530.5	4534.9
7.5°	4452.5	4409.2	4465.5	4482.9	4478.5	4521.9	4556.5	4591.1	4608.5	4582.5	4586.8
10°	4439.5	4404.9	4465.5	4491.5	4495.9	4543.5	4595.5	4643.1	4664.8	4647.5	4660.4
12.5°	4422.2	4400.5	4469.9	4508.9	4526.1	4573.8	4638.8	4695.1	4729.8	4721.1	4747.0
15°	4404.9	4387.6	4469.9	4526.1	4547.9	4591.1	4664.8	4747.0	4786.0	4781.8	4816.4
17.5°	4361.6	4357.2	4443.9	4504.5	4534.9	4586.8	4656.1	4755.8	4794.8	4803.4	4846.6
20°	4292.2	4292.2	4387.6	4452.5	4487.1	4534.9	4621.5	4716.8	4764.4	4773.0	4820.8
22.5°	4197.0	4205.6	4296.6	4361.6	4413.5	4448.2	4539.1	4638.8	4682.1	4695.1	4747.0
25°	4071.4	4080.0	4166.6	4231.6	4288.0	4326.9	4413.5	4504.5	4556.5	4569.5	4608.5
27.5°	3906.8	3924.1	4006.4	4071.4	4119.0	4145.0	4236.0	4331.2	4370.2	4383.2	4422.2
30°	3716.2	3720.5	3802.9	3859.1	3906.8	3928.5	4006.4	4106.0	4136.4	4149.4	4205.6
32.5°	3482.4	3478.0	3556.0	3608.0	3646.9	3672.9	3755.2	3820.1	3850.5	3872.1	3902.5
35°	3200.8	3196.5	3252.8	3313.4	3343.8	3352.4	3434.8	3504.0	3521.4	3538.6	3577.6
37.5°	2884.6	2884.6	2932.2	2962.6	2997.2	3010.2	3049.2	3127.1	3157.5	3153.1	3183.5
40°	2551.1	2533.8	2568.4	2598.8	2607.4	2611.8	2650.8	2711.4	2733.0	2733.0	2754.6
42.5°	2200.2	2174.2	2178.6	2196.0	2204.6	2174.2	2200.2	2239.2	2226.2	2243.6	2247.9
45°	1827.8	1788.8	1771.5	1732.5	1741.1	1710.9	1693.5	1702.1	1697.9	1654.5	1663.2
47.5°	1524.6	1455.2	1425.0	1368.6	1355.6	1321.0	1299.4	1260.4	1225.8	1225.8	1204.1
50°	1269.0	1199.8	1139.1	1074.1	1052.5	1022.1	974.5	922.5	896.6	870.6	848.9
52.5°	1065.5	991.9	918.2	848.9	818.6	779.6	714.6	662.6	615.0	589.0	563.1
55°	900.9	818.6	740.6	667.0	628.0	589.0	524.1	463.5	407.1	372.5	350.9
57.5°	775.2	697.4	615.0	537.1	502.4	459.1	389.9	324.9	272.9	233.9	212.2
60°	684.4	606.4	532.8	450.5	415.8	372.5	298.9	238.2	186.2	151.6	125.6
62.5°	606.4	537.1	459.1	385.5	350.9	307.5	238.2	177.6	130.0	95.2	73.6
65°	550.1	480.8	415.8	342.1	311.9	268.5	203.6	147.2	104.0	73.6	52.0
67.5°	485.1	424.5	359.5	298.9	268.5	233.9	173.2	125.6	86.6	60.6	43.4
70°	407.1	359.5	303.2	246.9	225.2	194.9	142.9	104.0	69.2	47.6	34.6
72.5°	324.9	285.9	242.5	199.2	181.9	151.6	117.0	82.2	52.0	34.6	26.0
75°	246.9	216.6	181.9	151.6	134.2	117.0	86.6	60.6	39.0	26.0	17.4
77.5°	168.9	155.9	130.0	104.0	95.2	82.2	56.2	39.0	26.0	17.4	8.6
80°	117.0	104.0	86.6	69.2	60.6	52.0	34.6	26.0	13.0	8.6	4.4
82.5°	73.6	60.6	52.0	43.4	39.0	30.4	21.6	13.0	8.6	4.4	4.4
85°	39.0	34.6	30.4	21.6	21.6	17.4	13.0	8.6	4.4	0.0	0.0
87.5°	21.6	17.4	13.0	8.6	8.6	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	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°	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5
2.5°	4556.5	4556.5	4552.1	4604.1	4543.5	4604.1	4573.8	4604.1	4560.9	4556.5	4560.9
5°	4591.1	4604.1	4608.5	4656.1	4599.8	4673.4	4647.5	4673.4	4643.1	4651.8	4664.8
7.5°	4660.4	4682.1	4677.8	4738.4	4682.1	4764.4	4747.0	4786.0	4755.8	4764.4	4781.8
10°	4738.4	4764.4	4768.8	4829.4	4777.4	4877.0	4855.4	4898.6	4872.6	4885.6	4907.4
12.5°	4829.4	4859.6	4864.0	4933.2	4877.0	4981.0	4968.0	5011.2	4989.6	5002.6	5028.6
15°	4898.6	4942.0	4950.6	5019.9	4959.2	5067.6	5058.9	5115.2	5080.6	5102.2	5123.9
17.5°	4933.2	4972.2	4989.6	5054.6	5002.6	5110.9	5102.2	5149.9	5123.9	5145.5	5171.5
20°	4911.6	4959.2	4972.2	5037.2	4985.2	5093.5	5080.6	5128.2	5102.2	5119.5	5145.5
22.5°	4833.6	4881.4	4898.6	4959.2	4911.6	5011.2	5006.9	5050.2	5015.6	5037.2	5058.9
25°	4695.1	4747.0	4755.8	4812.0	4760.0	4864.0	4855.4	4903.0	4877.0	4890.0	4920.2
27.5°	4495.9	4556.5	4569.5	4617.1	4578.1	4664.8	4664.8	4703.8	4673.4	4673.4	4703.8
30°	4257.6	4318.2	4326.9	4365.9	4331.2	4409.2	4413.5	4452.5	4404.9	4430.9	4435.2
32.5°	3967.4	4006.4	4032.4	4067.0	4015.1	4114.8	4101.8	4132.0	4106.0	4106.0	4127.8
35°	3616.6	3664.2	3677.2	3720.5	3677.2	3755.2	3755.2	3772.5	3746.5	3746.5	3781.2
37.5°	3235.5	3270.1	3274.4	3317.8	3283.1	3348.1	3343.8	3356.8	3330.8	3348.1	3348.1
40°	2789.4	2815.4	2824.0	2845.6	2841.2	2889.0	2884.6	2893.2	2880.2	2884.6	2893.2
42.5°	2269.6	2304.2	2321.5	2338.9	2312.9	2377.9	2364.9	2377.9	2373.5	2377.9	2390.9
45°	1671.9	1697.9	1710.9	1715.1	1706.5	1745.5	1775.9	1749.9	1754.1	1745.5	1762.9
47.5°	1208.4	1212.8	1204.1	1230.1	1208.4	1225.8	1234.4	1238.8	1212.8	1208.4	1225.8
50°	827.2	848.9	818.6	831.6	827.2	844.6	835.9	840.2	814.2	827.2	818.6
52.5°	550.1	545.8	537.1	541.4	532.8	532.8	532.8	541.4	524.1	515.4	506.8
55°	333.5	324.9	307.5	303.2	303.2	307.5	298.9	290.2	290.2	285.9	285.9
57.5°	194.9	181.9	173.2	168.9	160.2	155.9	151.6	151.6	142.9	142.9	142.9
60°	108.2	95.2	86.6	78.0	78.0	73.6	69.2	65.0	65.0	65.0	60.6
62.5°	56.2	47.6	39.0	34.6	34.6	30.4	26.0	26.0	26.0	26.0	21.6
65°	39.0	30.4	26.0	21.6	21.6	17.4	17.4	17.4	17.4	17.4	17.4
67.5°	30.4	26.0	21.6	17.4	17.4	17.4	13.0	13.0	13.0	13.0	13.0
70°	26.0	17.4	17.4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
72.5°	17.4	17.4	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
75°	13.0	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
77.5°	4.4	4.4	4.4	4.4	4.4	4.4	0.0	0.0	0.0	0.0	0.0
80°	4.4	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: P252216

CATALOG NUMBER: LE_6B60D010R EC6B60709050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5	4530.5
2.5°	4599.8	4595.5	4599.8	4608.5	4591.1	4643.1	4617.1	4643.1
5°	4699.4	4703.8	4708.1	4721.1	4699.4	4764.4	4729.8	4768.8
7.5°	4829.4	4833.6	4838.0	4851.0	4838.0	4903.0	4864.0	4898.6
10°	4963.6	4972.2	4972.2	4994.0	4981.0	5041.6	5015.6	5058.9
12.5°	5089.2	5097.9	5106.5	5119.5	5110.9	5175.9	5154.2	5188.9
15°	5188.9	5206.1	5210.5	5227.9	5219.1	5288.5	5262.5	5297.1
17.5°	5236.5	5253.9	5253.9	5275.5	5266.8	5340.5	5305.8	5344.8
20°	5210.5	5223.5	5227.9	5249.5	5240.9	5314.5	5279.8	5327.5
22.5°	5128.2	5132.5	5136.9	5158.5	5154.2	5219.1	5188.9	5219.1
25°	4976.6	4989.6	4985.2	5002.6	5002.6	5054.6	5019.9	5045.9
27.5°	4760.0	4773.0	4773.0	4794.8	4777.4	4829.4	4794.8	4833.6
30°	4495.9	4508.9	4500.1	4517.5	4500.1	4552.1	4526.1	4539.1
32.5°	4179.6	4179.6	4184.0	4188.4	4179.6	4227.2	4201.4	4227.2
35°	3802.9	3811.5	3815.9	3820.1	3811.5	3846.1	3815.9	3833.1
37.5°	3378.4	3400.0	3395.8	3400.0	3387.0	3430.4	3404.4	3413.0
40°	2923.6	2923.6	2919.2	2927.9	2915.0	2949.6	2932.2	2940.9
42.5°	2395.1	2408.1	2390.9	2412.5	2377.9	2425.5	2408.1	2395.1
45°	1797.5	1780.1	1775.9	1780.1	1767.1	1771.5	1784.5	1775.9
47.5°	1225.8	1225.8	1217.1	1204.1	1221.4	1225.8	1208.4	1208.4
50°	823.0	823.0	814.2	810.0	818.6	814.2	805.6	818.6
52.5°	524.1	506.8	506.8	515.4	506.8	498.1	511.1	502.4
55°	285.9	277.2	277.2	285.9	277.2	277.2	272.9	281.5
57.5°	138.6	142.9	138.6	138.6	138.6	138.6	134.2	138.6
60°	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
62.5°	26.0	26.0	21.6	21.6	21.6	21.6	21.6	21.6
65°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
67.5°	13.0	13.0	13.0	13.0	13.0	17.4	13.0	13.0
70°	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
72.5°	13.0	13.0	17.4	17.4	17.4	17.4	17.4	17.4
75°	8.6	8.6	8.6	4.4	4.4	4.4	4.4	4.4
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)