

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: P252196

Luminaire Tested: **LE_6B50D010R EC6B30508040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252196
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_6B50D010R EC6B30508040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8810.0 lumens
Efficiency: N/A
Efficacy: 149.8 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

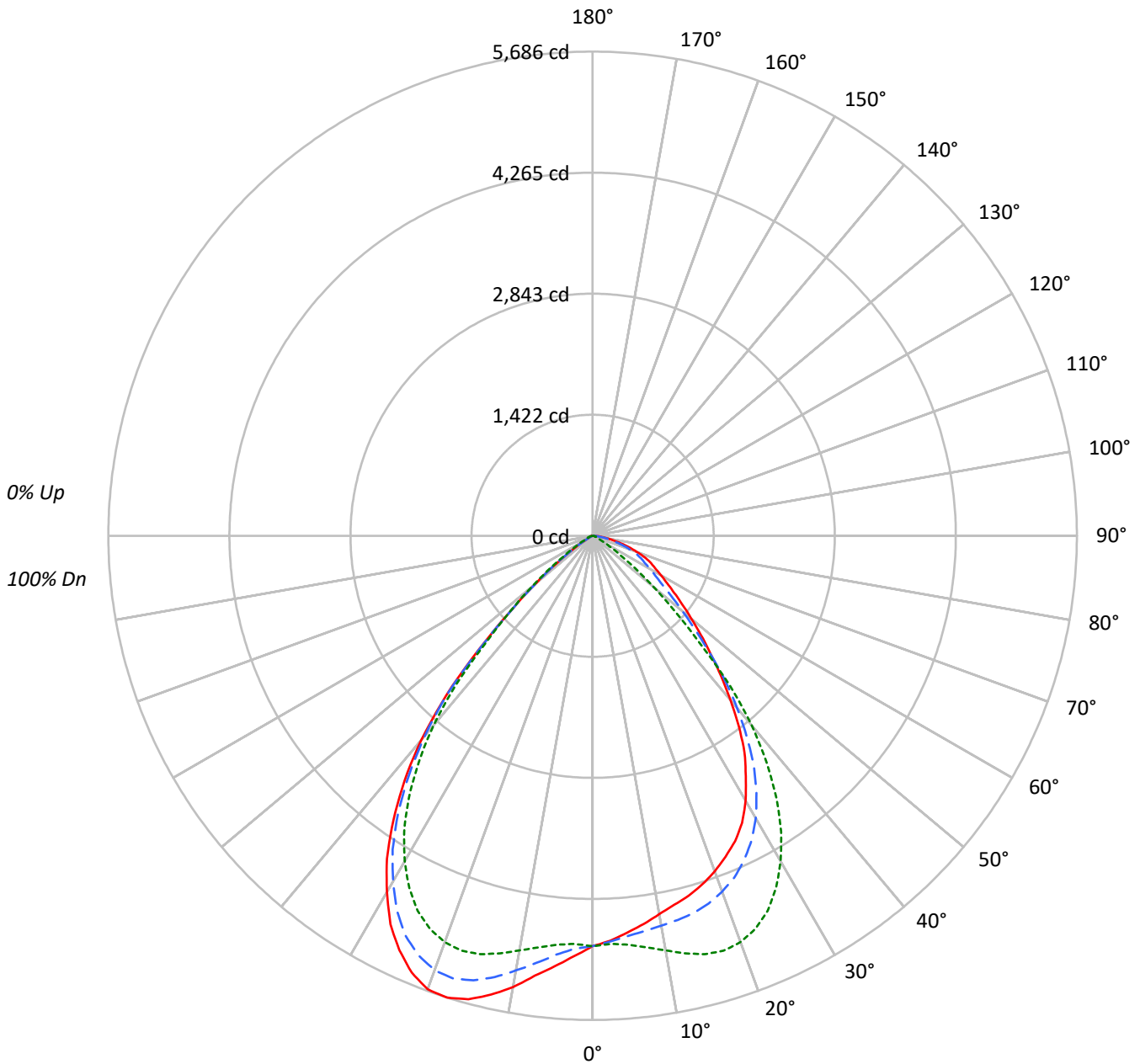
Input Watts (W): 58.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	314447	314447	314447
5°	306289	315648	332243
10°	298841	327532	356535
15°	295348	343586	380627
20°	291117	352540	393488
25°	284924	349934	386423
30°	270756	332537	363785
35°	247709	299828	324781
40°	214268	247619	266466
45°	180690	162394	174305
50°	153402	93996	88393
55°	133125	45065	34066
60°	120238	21034	8416
65°	116644	12103	2840
70°	104608	9652	2651
75°	85956	6957	1160
80°	64058	3456	0
85°	55243	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.5	5.3
10°-20°	1418.8	16.1
20°-30°	2167.8	24.6
30°-40°	2267.3	25.7
40°-50°	1470.8	16.7
50°-60°	584.0	6.6
60°-70°	277.0	3.1
70°-80°	131.8	1.5
80°-90°	26.9	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°	4052.2	46.0
0°-40°	6319.5	71.7
0°-60°	8374.3	95.1
0°-90°	8810.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8810.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4820	4820	4820	4820	4820	
5°	4677	4718	4820	4940	5073	442
15°	4373	4585	5087	5405	5635	1232
25°	3958	4207	4861	5188	5368	1812
35°	3110	3299	3765	3986	4078	1923
45°	1958	1940	1760	1866	1889	1524
55°	1170	995	396	309	300	1060
65°	756	627	78	18	18	738
75°	341	276	28	9	5	368
85°	74	46	0	0	0	86
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°	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8
2.5°	4759.9	4769.1	4718.4	4704.6	4741.4	4755.2	4759.9	4746.0	4750.6	4769.1	4769.1
5°	4676.9	4686.1	4640.0	4626.2	4663.1	4672.4	4686.1	4681.5	4695.4	4723.0	4718.4
7.5°	4598.6	4612.4	4561.8	4543.2	4589.4	4612.4	4621.6	4621.6	4640.0	4676.9	4681.5
10°	4511.0	4529.5	4483.4	4474.1	4524.9	4547.9	4552.5	4561.8	4589.4	4640.0	4649.2
12.5°	4437.4	4455.8	4423.5	4409.6	4465.0	4488.0	4497.2	4515.6	4547.9	4612.4	4621.6
15°	4372.8	4386.6	4349.8	4340.5	4395.9	4423.5	4428.1	4455.8	4497.2	4571.0	4584.8
17.5°	4289.9	4299.1	4271.4	4262.2	4317.5	4345.1	4349.8	4382.0	4432.8	4506.4	4529.5
20°	4193.1	4202.4	4174.6	4165.5	4220.8	4253.0	4257.6	4285.2	4345.1	4423.5	4446.5
22.5°	4077.9	4096.4	4064.1	4054.9	4110.1	4137.8	4151.6	4174.6	4234.6	4312.9	4345.1
25°	3958.1	3958.1	3935.1	3930.5	3981.1	4013.4	4008.8	4041.0	4101.0	4179.2	4206.9
27.5°	3801.5	3796.9	3773.8	3769.1	3824.5	3852.1	3842.9	3875.1	3930.5	4008.8	4036.5
30°	3594.1	3603.2	3571.0	3561.9	3607.9	3654.0	3649.4	3681.6	3736.9	3810.6	3829.1
32.5°	3345.2	3354.5	3349.9	3336.0	3377.5	3400.5	3414.4	3437.4	3483.5	3561.9	3580.2
35°	3110.2	3096.5	3078.0	3078.0	3119.5	3156.4	3142.5	3170.1	3216.2	3294.6	3299.2
37.5°	2820.0	2815.4	2806.1	2797.0	2843.0	2852.2	2856.9	2875.2	2916.8	2981.2	2972.0
40°	2515.9	2520.5	2515.9	2497.4	2525.1	2562.0	2557.4	2566.5	2603.4	2649.5	2635.6
42.5°	2230.1	2230.1	2230.1	2211.8	2244.0	2262.4	2271.6	2267.0	2276.2	2317.8	2299.2
45°	1958.4	1962.9	1958.4	1953.8	1958.4	1967.5	1958.4	1953.8	1953.8	1967.5	1939.9
47.5°	1723.4	1723.4	1709.5	1695.6	1709.5	1714.1	1700.2	1686.5	1681.9	1677.2	1631.1
50°	1511.4	1506.8	1502.1	1479.1	1492.9	1497.5	1479.1	1469.9	1451.5	1428.4	1373.1
52.5°	1327.0	1322.5	1317.9	1294.8	1304.0	1308.6	1290.1	1271.8	1248.8	1230.2	1161.1
55°	1170.4	1165.8	1165.8	1152.0	1142.8	1152.0	1133.5	1119.8	1087.5	1064.4	995.2
57.5°	1036.8	1036.8	1027.5	1013.8	1018.4	1018.4	999.9	981.5	953.9	926.1	870.9
60°	921.5	921.5	921.5	907.8	907.8	907.8	898.5	880.1	857.0	829.4	774.1
62.5°	829.4	829.4	824.8	811.0	815.6	815.6	806.4	787.9	764.9	746.5	691.1
65°	755.6	755.6	755.6	741.9	741.9	746.5	737.2	718.9	700.4	677.4	626.6
67.5°	663.5	658.9	658.9	649.8	654.2	658.9	649.8	635.9	612.9	599.0	552.9
70°	548.4	552.9	557.5	543.8	548.4	548.4	543.8	529.9	516.1	502.2	460.8
72.5°	447.0	447.0	442.4	437.8	437.8	442.4	433.1	419.2	410.1	400.9	368.6
75°	341.0	336.4	341.0	331.8	331.8	331.8	322.5	318.0	313.4	299.5	276.5
77.5°	248.9	244.2	244.2	235.0	239.6	239.6	235.0	225.8	216.6	212.0	193.5
80°	170.5	170.5	170.5	165.9	165.9	161.2	161.2	156.6	147.5	142.9	133.6
82.5°	115.2	115.2	115.2	110.6	110.6	110.6	106.0	101.4	96.8	92.1	83.0
85°	73.8	73.8	73.8	69.1	69.1	69.1	64.5	64.5	59.9	55.2	46.1
87.5°	41.5	41.5	41.5	36.9	36.9	36.9	36.9	36.9	32.2	27.6	23.0
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°	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8
2.5°	4801.4	4736.9	4778.2	4778.2	4764.5	4801.4	4824.4	4842.8	4838.2	4796.8	4792.1
5°	4764.5	4709.1	4755.2	4759.9	4746.0	4796.8	4829.0	4852.0	4856.6	4819.8	4824.4
7.5°	4736.9	4690.8	4750.6	4769.1	4764.5	4810.5	4847.4	4884.2	4902.8	4875.0	4879.6
10°	4723.0	4686.1	4750.6	4778.2	4782.9	4833.6	4888.9	4939.6	4962.6	4944.1	4958.0
12.5°	4704.6	4681.5	4755.2	4796.8	4815.1	4865.9	4935.0	4994.9	5031.8	5022.5	5050.1
15°	4686.1	4667.8	4755.2	4815.1	4838.2	4884.2	4962.6	5050.1	5091.6	5087.0	5123.9
17.5°	4640.0	4635.5	4727.6	4792.1	4824.4	4879.6	4953.4	5059.4	5100.9	5110.0	5156.1
20°	4566.4	4566.4	4667.8	4736.9	4773.6	4824.4	4916.5	5017.9	5068.6	5077.8	5128.5
22.5°	4465.0	4474.1	4571.0	4640.0	4695.4	4732.2	4829.0	4935.0	4981.0	4994.9	5050.1
25°	4331.4	4340.5	4432.8	4501.9	4561.8	4603.2	4695.4	4792.1	4847.4	4861.2	4902.8
27.5°	4156.2	4174.6	4262.2	4331.4	4382.0	4409.6	4506.4	4607.8	4649.2	4663.1	4704.6
30°	3953.5	3958.1	4045.6	4105.5	4156.2	4179.2	4262.2	4368.2	4400.5	4414.2	4474.1
32.5°	3704.6	3700.1	3783.0	3838.2	3879.8	3907.4	3995.0	4064.1	4096.4	4119.4	4151.6
35°	3405.1	3400.5	3460.5	3525.0	3557.2	3566.5	3654.0	3727.8	3746.1	3764.6	3806.0
37.5°	3068.8	3068.8	3119.5	3151.8	3188.6	3202.4	3243.9	3326.9	3359.1	3354.5	3386.8
40°	2714.0	2695.6	2732.4	2764.6	2773.9	2778.5	2820.0	2884.5	2907.5	2907.5	2930.6
42.5°	2340.8	2313.1	2317.8	2336.1	2345.4	2313.1	2340.8	2382.2	2368.4	2386.9	2391.5
45°	1944.5	1903.0	1884.6	1843.1	1852.4	1820.1	1801.6	1810.9	1806.2	1760.1	1769.4
47.5°	1622.0	1548.2	1516.0	1456.1	1442.2	1405.4	1382.4	1340.9	1304.0	1304.0	1281.0
50°	1350.1	1276.4	1211.9	1142.8	1119.8	1087.5	1036.8	981.5	953.9	926.1	903.1
52.5°	1133.5	1055.2	976.9	903.1	870.9	829.4	760.2	705.0	654.2	626.6	599.0
55°	958.4	870.9	787.9	709.6	668.1	626.6	557.5	493.0	433.1	396.2	373.2
57.5°	824.8	741.9	654.2	571.4	534.5	488.4	414.8	345.6	290.2	248.9	225.8
60°	728.0	645.1	566.8	479.2	442.4	396.2	318.0	253.4	198.1	161.2	133.6
62.5°	645.1	571.4	488.4	410.1	373.2	327.1	253.4	188.9	138.2	101.4	78.4
65°	585.2	511.5	442.4	364.0	331.8	285.6	216.6	156.6	110.6	78.4	55.2
67.5°	516.1	451.6	382.5	318.0	285.6	248.9	184.2	133.6	92.1	64.5	46.1
70°	433.1	382.5	322.5	262.6	239.6	207.4	152.0	110.6	73.8	50.6	36.9
72.5°	345.6	304.1	258.0	212.0	193.5	161.2	124.4	87.5	55.2	36.9	27.6
75°	262.6	230.4	193.5	161.2	142.9	124.4	92.1	64.5	41.5	27.6	18.4
77.5°	179.8	165.9	138.2	110.6	101.4	87.5	59.9	41.5	27.6	18.4	9.2
80°	124.4	110.6	92.1	73.8	64.5	55.2	36.9	27.6	13.9	9.2	4.6
82.5°	78.4	64.5	55.2	46.1	41.5	32.2	23.0	13.9	9.2	4.6	4.6
85°	41.5	36.9	32.2	23.0	23.0	18.4	13.9	9.2	4.6	0.0	0.0
87.5°	23.0	18.4	13.9	9.2	9.2	4.6	4.6	4.6	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°	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8
2.5°	4847.4	4847.4	4842.8	4898.1	4833.6	4898.1	4865.9	4898.1	4852.0	4847.4	4852.0
5°	4884.2	4898.1	4902.8	4953.4	4893.5	4971.9	4944.1	4971.9	4939.6	4948.8	4962.6
7.5°	4958.0	4981.0	4976.4	5041.0	4981.0	5068.6	5050.1	5091.6	5059.4	5068.6	5087.0
10°	5041.0	5068.6	5073.2	5137.8	5082.4	5188.4	5165.4	5211.4	5183.8	5197.6	5220.6
12.5°	5137.8	5170.0	5174.6	5248.2	5188.4	5299.0	5285.1	5331.2	5308.2	5322.0	5349.6
15°	5211.4	5257.5	5266.8	5340.5	5276.0	5391.1	5381.9	5441.9	5405.0	5428.0	5451.0
17.5°	5248.2	5289.8	5308.2	5377.2	5322.0	5437.2	5428.0	5478.6	5451.0	5474.1	5501.8
20°	5225.2	5276.0	5289.8	5358.9	5303.6	5418.8	5405.0	5455.6	5428.0	5446.4	5474.1
22.5°	5142.2	5193.0	5211.4	5276.0	5225.2	5331.2	5326.6	5372.8	5335.9	5358.9	5381.9
25°	4994.9	5050.1	5059.4	5119.2	5064.0	5174.6	5165.4	5216.0	5188.4	5202.2	5234.5
27.5°	4782.9	4847.4	4861.2	4911.9	4870.5	4962.6	4962.6	5004.1	4971.9	4971.9	5004.1
30°	4529.5	4594.0	4603.2	4644.6	4607.8	4690.8	4695.4	4736.9	4686.1	4713.8	4718.4
32.5°	4220.8	4262.2	4289.9	4326.8	4271.4	4377.4	4363.6	4395.9	4368.2	4368.2	4391.2
35°	3847.5	3898.2	3912.0	3958.1	3912.0	3995.0	3995.0	4013.4	3985.8	3985.8	4022.6
37.5°	3442.0	3478.9	3483.5	3529.6	3492.8	3561.9	3557.2	3571.0	3543.4	3561.9	3561.9
40°	2967.4	2995.1	3004.2	3027.4	3022.8	3073.4	3068.8	3078.0	3064.2	3068.8	3078.0
42.5°	2414.5	2451.4	2469.8	2488.2	2460.6	2529.6	2515.9	2529.6	2525.1	2529.6	2543.5
45°	1778.6	1806.2	1820.1	1824.8	1815.5	1857.0	1889.2	1861.5	1866.1	1857.0	1875.4
47.5°	1285.6	1290.1	1281.0	1308.6	1285.6	1304.0	1313.2	1317.9	1290.1	1285.6	1304.0
50°	880.1	903.1	870.9	884.8	880.1	898.5	889.2	893.9	866.2	880.1	870.9
52.5°	585.2	580.6	571.4	576.0	566.8	566.8	566.8	576.0	557.5	548.4	539.1
55°	354.8	345.6	327.1	322.5	322.5	327.1	318.0	308.8	308.8	304.1	304.1
57.5°	207.4	193.5	184.2	179.8	170.5	165.9	161.2	161.2	152.0	152.0	152.0
60°	115.2	101.4	92.1	83.0	83.0	78.4	73.8	69.1	69.1	69.1	64.5
62.5°	59.9	50.6	41.5	36.9	36.9	32.2	27.6	27.6	27.6	27.6	23.0
65°	41.5	32.2	27.6	23.0	23.0	18.4	18.4	18.4	18.4	18.4	18.4
67.5°	32.2	27.6	23.0	18.4	18.4	18.4	13.9	13.9	13.9	13.9	13.9
70°	27.6	18.4	18.4	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
72.5°	18.4	18.4	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
75°	13.9	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
77.5°	4.6	4.6	4.6	4.6	4.6	4.6	0.0	0.0	0.0	0.0	0.0
80°	4.6	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: P252196

CATALOG NUMBER: LE_6B50D010R EC6B30508040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8	4819.8
2.5°	4893.5	4888.9	4893.5	4902.8	4884.2	4939.6	4911.9	4939.6
5°	4999.5	5004.1	5008.6	5022.5	4999.5	5068.6	5031.8	5073.2
7.5°	5137.8	5142.2	5146.9	5160.8	5146.9	5216.0	5174.6	5211.4
10°	5280.5	5289.8	5289.8	5312.8	5299.0	5363.5	5335.9	5381.9
12.5°	5414.1	5423.4	5432.6	5446.4	5437.2	5506.4	5483.2	5520.1
15°	5520.1	5538.6	5543.2	5561.6	5552.4	5626.1	5598.5	5635.4
17.5°	5570.9	5589.2	5589.2	5612.2	5603.1	5681.4	5644.5	5686.0
20°	5543.2	5557.0	5561.6	5584.6	5575.5	5653.8	5616.9	5667.6
22.5°	5455.6	5460.2	5464.9	5487.9	5483.2	5552.4	5520.1	5552.4
25°	5294.4	5308.2	5303.6	5322.0	5322.0	5377.2	5340.5	5368.1
27.5°	5064.0	5077.8	5077.8	5100.9	5082.4	5137.8	5100.9	5142.2
30°	4782.9	4796.8	4787.5	4806.0	4787.5	4842.8	4815.1	4829.0
32.5°	4446.5	4446.5	4451.1	4455.8	4446.5	4497.2	4469.6	4497.2
35°	4045.6	4054.9	4059.5	4064.1	4054.9	4091.8	4059.5	4077.9
37.5°	3594.1	3617.1	3612.5	3617.1	3603.2	3649.4	3621.8	3631.0
40°	3110.2	3110.2	3105.6	3114.9	3101.0	3137.9	3119.5	3128.8
42.5°	2548.1	2562.0	2543.5	2566.5	2529.6	2580.4	2562.0	2548.1
45°	1912.2	1893.8	1889.2	1893.8	1880.0	1884.6	1898.4	1889.2
47.5°	1304.0	1304.0	1294.8	1281.0	1299.4	1304.0	1285.6	1285.6
50°	875.5	875.5	866.2	861.6	870.9	866.2	857.0	870.9
52.5°	557.5	539.1	539.1	548.4	539.1	529.9	543.8	534.5
55°	304.1	294.9	294.9	304.1	294.9	294.9	290.2	299.5
57.5°	147.5	152.0	147.5	147.5	147.5	147.5	142.9	147.5
60°	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
62.5°	27.6	27.6	23.0	23.0	23.0	23.0	23.0	23.0
65°	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
67.5°	13.9	13.9	13.9	13.9	13.9	18.4	13.9	13.9
70°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
72.5°	13.9	13.9	18.4	18.4	18.4	18.4	18.4	18.4
75°	9.2	9.2	9.2	4.6	4.6	4.6	4.6	4.6
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)