

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: io LED

Report Number: P252228

Luminaire Tested: **LD6B70D010TE EU6B60709040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252228
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: io LED
Catalog Number: LD6B70D010TE EU6B60709040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7829.0 lumens
Efficiency: N/A
Efficacy: 98.5 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

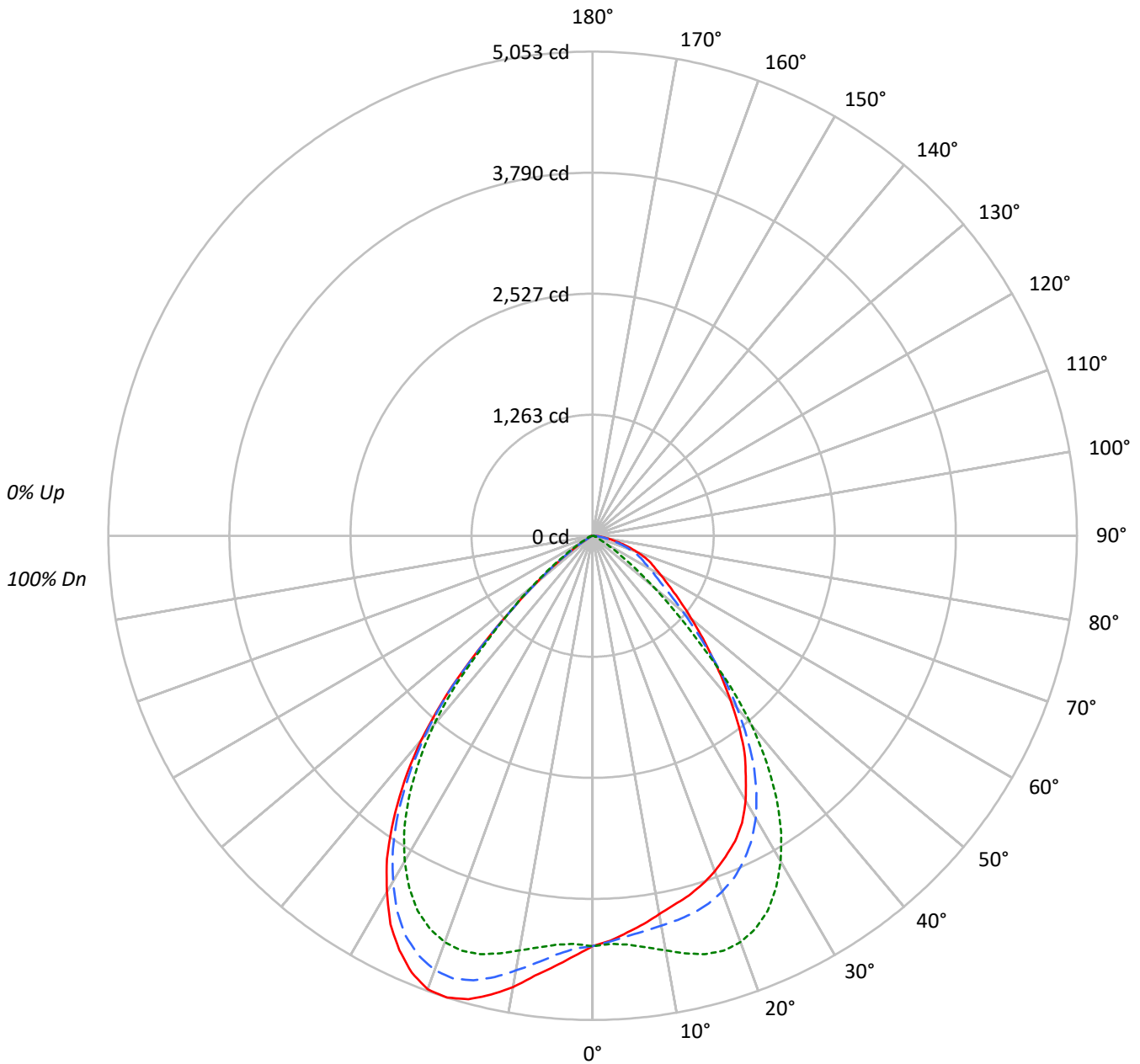
Input Watts (W): 79.45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	279432	279432	279432
5°	272182	280500	295248
10°	265565	291063	316833
15°	262462	305331	338237
20°	258701	313285	349672
25°	253200	310968	343398
30°	240607	295510	323278
35°	220128	266441	288614
40°	190405	220051	236786
45°	160567	144320	154893
50°	136320	83532	78548
55°	118305	40049	30279
60°	106851	18698	7477
65°	103661	10744	2532
70°	92953	8584	2346
75°	76377	6201	1033
80°	56919	3081	0
85°	49030	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.7	5.3
10°-20°	1260.8	16.1
20°-30°	1926.4	24.6
30°-40°	2014.9	25.7
40°-50°	1307.1	16.7
50°-60°	519.0	6.6
60°-70°	246.2	3.1
70°-80°	117.1	1.5
80°-90°	23.9	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°	3601.0	46.0
0°-40°	5615.8	71.7
0°-60°	7441.9	95.1
0°-90°	7829.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7829.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4283	4283	4283	4283	4283	
5°	4156	4193	4283	4390	4508	392
15°	3886	4074	4521	4803	5008	1095
25°	3517	3738	4320	4611	4770	1611
35°	2764	2932	3345	3542	3624	1709
45°	1740	1724	1564	1658	1679	1354
55°	1040	884	352	274	266	942
65°	672	557	70	16	16	656
75°	303	246	25	8	4	327
85°	66	41	0	0	0	76
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°	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1
2.5°	4229.8	4238.0	4193.0	4180.7	4213.5	4225.8	4229.8	4217.6	4221.7	4238.0	4238.0
5°	4156.1	4164.3	4123.4	4111.1	4143.9	4152.0	4164.3	4160.2	4172.5	4197.1	4193.0
7.5°	4086.5	4098.8	4053.8	4037.4	4078.3	4098.8	4107.0	4107.0	4123.4	4156.1	4160.2
10°	4008.7	4025.1	3984.2	3976.0	4021.0	4041.5	4045.6	4053.8	4078.3	4123.4	4131.6
12.5°	3943.2	3959.6	3930.9	3918.7	3967.8	3988.3	3996.5	4012.8	4041.5	4098.8	4107.0
15°	3885.9	3898.2	3865.4	3857.2	3906.4	3930.9	3935.0	3959.6	3996.5	4062.0	4074.2
17.5°	3812.2	3820.4	3795.8	3787.6	3836.8	3861.3	3865.4	3894.1	3939.1	4004.6	4025.1
20°	3726.2	3734.4	3709.8	3701.6	3750.8	3779.4	3783.5	3808.1	3861.3	3930.9	3951.4
22.5°	3623.8	3640.2	3611.5	3603.4	3652.5	3677.1	3689.3	3709.8	3763.1	3832.7	3861.3
25°	3517.4	3517.4	3496.9	3492.8	3537.8	3566.5	3562.4	3591.1	3644.3	3713.9	3738.5
27.5°	3378.1	3374.1	3353.6	3349.5	3398.6	3423.2	3415.0	3443.7	3492.8	3562.4	3587.0
30°	3193.9	3202.1	3173.4	3165.2	3206.2	3247.1	3243.0	3271.7	3320.8	3386.3	3402.7
32.5°	2972.8	2981.0	2976.9	2964.6	3001.4	3021.9	3034.2	3054.7	3095.6	3165.2	3181.6
35°	2763.9	2751.7	2735.3	2735.3	2772.1	2804.9	2792.6	2817.2	2858.1	2927.7	2931.8
37.5°	2506.0	2501.9	2493.7	2485.5	2526.4	2534.6	2538.7	2555.1	2592.0	2649.3	2641.1
40°	2235.7	2239.8	2235.7	2219.3	2243.9	2276.7	2272.6	2280.8	2313.5	2354.5	2342.2
42.5°	1981.8	1981.8	1981.8	1965.5	1994.1	2010.5	2018.7	2014.6	2022.8	2059.6	2043.3
45°	1740.3	1744.4	1740.3	1736.2	1740.3	1748.4	1740.3	1736.2	1736.2	1748.4	1723.9
47.5°	1531.4	1531.4	1519.1	1506.9	1519.1	1523.2	1511.0	1498.7	1494.6	1490.5	1449.5
50°	1343.1	1339.0	1334.9	1314.4	1326.7	1330.8	1314.4	1306.2	1289.8	1269.4	1220.2
52.5°	1179.3	1175.2	1171.1	1150.6	1158.8	1162.9	1146.5	1130.1	1109.7	1093.3	1031.9
55°	1040.1	1036.0	1036.0	1023.7	1015.5	1023.7	1007.3	995.0	966.4	945.9	884.5
57.5°	921.3	921.3	913.1	900.8	904.9	904.9	888.6	872.2	847.6	823.0	773.9
60°	818.9	818.9	818.9	806.7	806.7	806.7	798.5	782.1	761.6	737.1	687.9
62.5°	737.1	737.1	733.0	720.7	724.8	724.8	716.6	700.2	679.7	663.3	614.2
65°	671.5	671.5	671.5	659.3	659.3	663.3	655.2	638.8	622.4	601.9	556.9
67.5°	589.6	585.5	585.5	577.4	581.5	585.5	577.4	565.1	544.6	532.3	491.4
70°	487.3	491.4	495.5	483.2	487.3	487.3	483.2	470.9	458.6	446.3	409.5
72.5°	397.2	397.2	393.1	389.0	389.0	393.1	384.9	372.6	364.4	356.2	327.6
75°	303.0	298.9	303.0	294.8	294.8	294.8	286.6	282.5	278.4	266.2	245.7
77.5°	221.1	217.0	217.0	208.8	212.9	212.9	208.8	200.6	192.5	188.4	172.0
80°	151.5	151.5	151.5	147.4	147.4	143.3	143.3	139.2	131.0	126.9	118.7
82.5°	102.4	102.4	102.4	98.3	98.3	98.3	94.2	90.1	86.0	81.9	73.7
85°	65.5	65.5	65.5	61.4	61.4	61.4	57.3	57.3	53.2	49.1	40.9
87.5°	36.9	36.9	36.9	32.8	32.8	32.8	32.8	32.8	28.7	24.6	20.5
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°	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1
2.5°	4266.7	4209.4	4246.2	4246.2	4233.9	4266.7	4287.2	4303.6	4299.5	4262.6	4258.5
5°	4233.9	4184.8	4225.8	4229.8	4217.6	4262.6	4291.3	4311.7	4315.8	4283.1	4287.2
7.5°	4209.4	4168.4	4221.7	4238.0	4233.9	4274.9	4307.6	4340.4	4356.8	4332.2	4336.3
10°	4197.1	4164.3	4221.7	4246.2	4250.3	4295.4	4344.5	4389.5	4410.0	4393.6	4405.9
12.5°	4180.7	4160.2	4225.8	4262.6	4279.0	4324.0	4385.4	4438.7	4471.4	4463.2	4487.8
15°	4164.3	4148.0	4225.8	4279.0	4299.5	4340.4	4410.0	4487.8	4524.7	4520.6	4553.3
17.5°	4123.4	4119.3	4201.2	4258.5	4287.2	4336.3	4401.8	4496.0	4532.9	4541.0	4582.0
20°	4057.9	4057.9	4148.0	4209.4	4242.1	4287.2	4369.1	4459.2	4504.2	4512.4	4557.4
22.5°	3967.8	3976.0	4062.0	4123.4	4172.5	4205.3	4291.3	4385.4	4426.4	4438.7	4487.8
25°	3849.0	3857.2	3939.1	4000.5	4053.8	4090.6	4172.5	4258.5	4307.6	4319.9	4356.8
27.5°	3693.4	3709.8	3787.6	3849.0	3894.1	3918.7	4004.6	4094.7	4131.6	4143.9	4180.7
30°	3513.3	3517.4	3595.2	3648.4	3693.4	3713.9	3787.6	3881.8	3910.5	3922.7	3976.0
32.5°	3292.2	3288.1	3361.8	3410.9	3447.8	3472.3	3550.1	3611.5	3640.2	3660.7	3689.3
35°	3026.0	3021.9	3075.1	3132.5	3161.1	3169.3	3247.1	3312.6	3329.0	3345.4	3382.2
37.5°	2727.1	2727.1	2772.1	2800.8	2833.5	2845.8	2882.7	2956.4	2985.1	2981.0	3009.6
40°	2411.8	2395.4	2428.2	2456.8	2465.0	2469.1	2506.0	2563.3	2583.8	2583.8	2604.2
42.5°	2080.1	2055.6	2059.6	2076.0	2084.2	2055.6	2080.1	2117.0	2104.7	2121.1	2125.2
45°	1728.0	1691.1	1674.7	1637.9	1646.1	1617.4	1601.0	1609.2	1605.1	1564.2	1572.4
47.5°	1441.3	1375.8	1347.2	1293.9	1281.6	1248.9	1228.4	1191.6	1158.8	1158.8	1138.3
50°	1199.8	1134.2	1076.9	1015.5	995.0	966.4	921.3	872.2	847.6	823.0	802.6
52.5°	1007.3	937.7	868.1	802.6	773.9	737.1	675.6	626.5	581.5	556.9	532.3
55°	851.7	773.9	700.2	630.6	593.7	556.9	495.5	438.1	384.9	352.1	331.7
57.5°	733.0	659.3	581.5	507.7	475.0	434.0	368.5	307.1	258.0	221.1	200.6
60°	647.0	573.3	503.7	425.9	393.1	352.1	282.5	225.2	176.1	143.3	118.7
62.5°	573.3	507.7	434.0	364.4	331.7	290.7	225.2	167.9	122.8	90.1	69.6
65°	520.0	454.5	393.1	323.5	294.8	253.9	192.5	139.2	98.3	69.6	49.1
67.5°	458.6	401.3	339.9	282.5	253.9	221.1	163.8	118.7	81.9	57.3	40.9
70°	384.9	339.9	286.6	233.4	212.9	184.3	135.1	98.3	65.5	45.0	32.8
72.5°	307.1	270.3	229.3	188.4	172.0	143.3	110.6	77.8	49.1	32.8	24.6
75°	233.4	204.7	172.0	143.3	126.9	110.6	81.9	57.3	36.9	24.6	16.4
77.5°	159.7	147.4	122.8	98.3	90.1	77.8	53.2	36.9	24.6	16.4	8.2
80°	110.6	98.3	81.9	65.5	57.3	49.1	32.8	24.6	12.3	8.2	4.1
82.5°	69.6	57.3	49.1	40.9	36.9	28.7	20.5	12.3	8.2	4.1	4.1
85°	36.9	32.8	28.7	20.5	20.5	16.4	12.3	8.2	4.1	0.0	0.0
87.5°	20.5	16.4	12.3	8.2	8.2	4.1	4.1	4.1	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°	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1
2.5°	4307.6	4307.6	4303.6	4352.7	4295.4	4352.7	4324.0	4352.7	4311.7	4307.6	4311.7
5°	4340.4	4352.7	4356.8	4401.8	4348.6	4418.2	4393.6	4418.2	4389.5	4397.7	4410.0
7.5°	4405.9	4426.4	4422.3	4479.6	4426.4	4504.2	4487.8	4524.7	4496.0	4504.2	4520.6
10°	4479.6	4504.2	4508.3	4565.6	4516.5	4610.7	4590.2	4631.1	4606.6	4618.8	4639.3
12.5°	4565.6	4594.3	4598.4	4663.9	4610.7	4708.9	4696.6	4737.6	4717.1	4729.4	4754.0
15°	4631.1	4672.1	4680.3	4745.8	4688.5	4790.8	4782.6	4835.9	4803.1	4823.6	4844.1
17.5°	4663.9	4700.7	4717.1	4778.5	4729.4	4831.8	4823.6	4868.6	4844.1	4864.5	4889.1
20°	4643.4	4688.5	4700.7	4762.2	4713.0	4815.4	4803.1	4848.2	4823.6	4840.0	4864.5
22.5°	4569.7	4614.8	4631.1	4688.5	4643.4	4737.6	4733.5	4774.4	4741.7	4762.2	4782.6
25°	4438.7	4487.8	4496.0	4549.2	4500.1	4598.4	4590.2	4635.2	4610.7	4622.9	4651.6
27.5°	4250.3	4307.6	4319.9	4365.0	4328.1	4410.0	4410.0	4446.9	4418.2	4418.2	4446.9
30°	4025.1	4082.4	4090.6	4127.5	4094.7	4168.4	4172.5	4209.4	4164.3	4188.9	4193.0
32.5°	3750.8	3787.6	3812.2	3844.9	3795.8	3890.0	3877.7	3906.4	3881.8	3881.8	3902.3
35°	3419.1	3464.1	3476.4	3517.4	3476.4	3550.1	3550.1	3566.5	3541.9	3541.9	3574.7
37.5°	3058.8	3091.5	3095.6	3136.6	3103.8	3165.2	3161.1	3173.4	3148.8	3165.2	3165.2
40°	2637.0	2661.6	2669.8	2690.2	2686.1	2731.2	2727.1	2735.3	2723.0	2727.1	2735.3
42.5°	2145.6	2178.4	2194.8	2211.2	2186.6	2248.0	2235.7	2248.0	2243.9	2248.0	2260.3
45°	1580.6	1605.1	1617.4	1621.5	1613.3	1650.2	1678.8	1654.3	1658.4	1650.2	1666.6
47.5°	1142.4	1146.5	1138.3	1162.9	1142.4	1158.8	1167.0	1171.1	1146.5	1142.4	1158.8
50°	782.1	802.6	773.9	786.2	782.1	798.5	790.3	794.4	769.8	782.1	773.9
52.5°	520.0	515.9	507.7	511.8	503.7	503.7	503.7	511.8	495.5	487.3	479.1
55°	315.3	307.1	290.7	286.6	286.6	290.7	282.5	274.3	274.3	270.3	270.3
57.5°	184.3	172.0	163.8	159.7	151.5	147.4	143.3	143.3	135.1	135.1	135.1
60°	102.4	90.1	81.9	73.7	73.7	69.6	65.5	61.4	61.4	61.4	57.3
62.5°	53.2	45.0	36.9	32.8	32.8	28.7	24.6	24.6	24.6	24.6	20.5
65°	36.9	28.7	24.6	20.5	20.5	16.4	16.4	16.4	16.4	16.4	16.4
67.5°	28.7	24.6	20.5	16.4	16.4	16.4	12.3	12.3	12.3	12.3	12.3
70°	24.6	16.4	16.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
72.5°	16.4	16.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
75°	12.3	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
77.5°	4.1	4.1	4.1	4.1	4.1	4.1	0.0	0.0	0.0	0.0	0.0
80°	4.1	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: P252228

CATALOG NUMBER: LD6B70D010TE EU6B60709040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1	4283.1
2.5°	4348.6	4344.5	4348.6	4356.8	4340.4	4389.5	4365.0	4389.5
5°	4442.8	4446.9	4451.0	4463.2	4442.8	4504.2	4471.4	4508.3
7.5°	4565.6	4569.7	4573.8	4586.1	4573.8	4635.2	4598.4	4631.1
10°	4692.6	4700.7	4700.7	4721.2	4708.9	4766.3	4741.7	4782.6
12.5°	4811.3	4819.5	4827.7	4840.0	4831.8	4893.2	4872.7	4905.5
15°	4905.5	4921.9	4926.0	4942.3	4934.1	4999.7	4975.1	5007.8
17.5°	4950.5	4966.9	4966.9	4987.4	4979.2	5048.8	5016.0	5052.9
20°	4926.0	4938.2	4942.3	4962.8	4954.6	5024.2	4991.5	5036.5
22.5°	4848.2	4852.2	4856.3	4876.8	4872.7	4934.1	4905.5	4934.1
25°	4704.8	4717.1	4713.0	4729.4	4729.4	4778.5	4745.8	4770.4
27.5°	4500.1	4512.4	4512.4	4532.9	4516.5	4565.6	4532.9	4569.7
30°	4250.3	4262.6	4254.4	4270.8	4254.4	4303.6	4279.0	4291.3
32.5°	3951.4	3951.4	3955.5	3959.6	3951.4	3996.5	3971.9	3996.5
35°	3595.2	3603.4	3607.5	3611.5	3603.4	3636.1	3607.5	3623.8
37.5°	3193.9	3214.4	3210.3	3214.4	3202.1	3243.0	3218.5	3226.6
40°	2763.9	2763.9	2759.8	2768.0	2755.7	2788.5	2772.1	2780.3
42.5°	2264.4	2276.7	2260.3	2280.8	2248.0	2293.0	2276.7	2264.4
45°	1699.3	1682.9	1678.8	1682.9	1670.6	1674.7	1687.0	1678.8
47.5°	1158.8	1158.8	1150.6	1138.3	1154.7	1158.8	1142.4	1142.4
50°	778.0	778.0	769.8	765.7	773.9	769.8	761.6	773.9
52.5°	495.5	479.1	479.1	487.3	479.1	470.9	483.2	475.0
55°	270.3	262.1	262.1	270.3	262.1	262.1	258.0	266.2
57.5°	131.0	135.1	131.0	131.0	131.0	131.0	126.9	131.0
60°	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
62.5°	24.6	24.6	20.5	20.5	20.5	20.5	20.5	20.5
65°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
67.5°	12.3	12.3	12.3	12.3	12.3	16.4	12.3	12.3
70°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
72.5°	12.3	12.3	16.4	16.4	16.4	16.4	16.4	16.4
75°	8.2	8.2	8.2	4.1	4.1	4.1	4.1	4.1
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)