

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: P212725

Luminaire Tested: **LD4B20D010 EU4B10209030 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212725
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B20D010 EU4B10209030 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1570.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

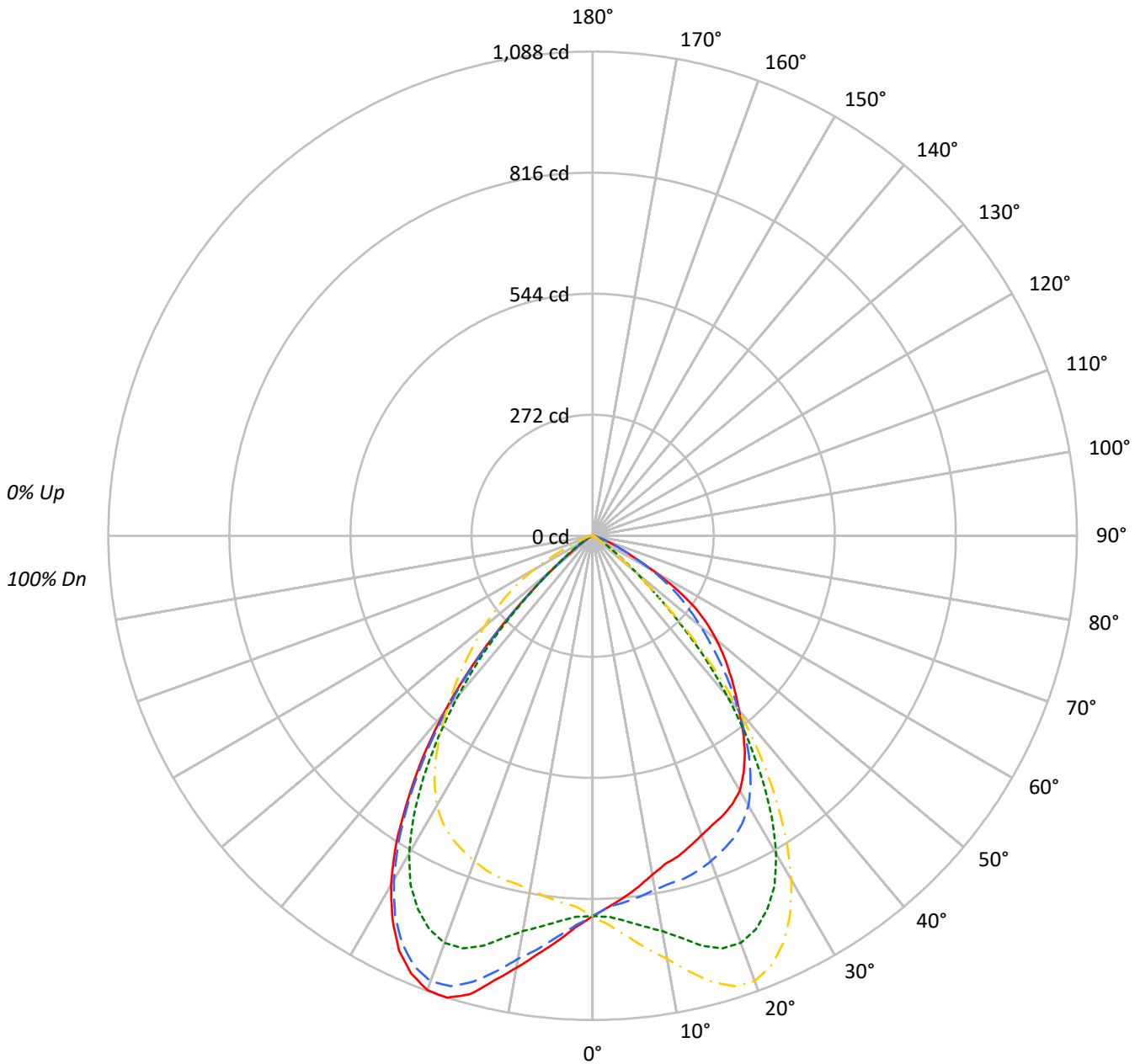
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91																			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82																			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73																			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60																			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41																			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	105424	105424	105424	105424
5°	100935	107646	113243	107646
10°	96867	112987	123457	112987
15°	95160	121836	136252	121836
20°	93957	127757	142576	127757
25°	94356	126162	139989	126162
30°	94230	117389	128968	117389
35°	89774	99622	108973	99622
40°	82360	75806	83632	75806
45°	76020	48249	52000	48249
50°	69542	23392	22758	23392
55°	60213	10193	7290	10193
60°	39002	5008	3330	5008
65°	20430	3298	2627	3298
70°	10999	2452	2020	2452
75°	5909	2145	1620	2145
80°	3978	1634	781	1634
85°	3255	1557	0	1557



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	5.3
10°-20°	260.7	16.6
20°-30°	405.3	25.8
30°-40°	409.3	26.1
40°-50°	259.2	16.5
50°-60°	108.8	6.9
60°-70°	34.5	2.2
70°-80°	7.9	0.5
80°-90°	1.1	0.1
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°	749.2	47.7
0°-40°	1158.6	73.8
0°-60°	1526.5	97.2
0°-90°	1570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	855	855	855	855	855	
5°	815	869	915	869	815	77
15°	745	954	1067	954	745	210
25°	693	927	1029	927	693	319
35°	596	662	724	662	596	370
45°	436	277	298	277	436	336
55°	280	47	34	47	280	242
65°	70	11	9	11	70	77
75°	12	4	3	4	12	15
85°	2	1	0	1	2	2
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°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	834.4	826.5	833.3	835.5	835.5	834.4	836.7	834.4	831.0	844.6	834.4
5°	815.2	809.6	815.2	817.5	818.6	819.7	822.0	822.0	820.9	833.3	826.5
7.5°	794.9	791.5	796.0	799.4	803.9	802.8	806.2	807.3	809.6	824.2	817.5
10°	773.4	770.0	775.7	777.9	783.6	784.7	787.0	790.4	794.9	809.6	807.3
12.5°	755.4	754.2	757.6	762.1	767.8	768.9	771.2	776.8	783.6	799.4	800.5
15°	745.2	744.1	747.5	752.0	756.5	758.8	761.0	768.9	775.7	792.6	797.1
17.5°	730.5	730.5	733.9	738.4	744.1	746.3	749.7	757.6	766.7	783.6	789.2
20°	715.8	717.0	719.2	723.7	729.4	731.7	735.0	742.9	753.1	770.0	777.9
22.5°	703.4	706.8	707.9	711.3	717.0	720.4	721.5	730.5	739.6	754.2	764.4
25°	693.3	697.8	697.8	700.0	706.8	707.9	709.1	718.1	726.0	739.6	749.7
27.5°	679.7	684.2	684.2	687.6	692.1	694.4	694.4	702.3	710.2	720.4	728.3
30°	661.6	665.0	665.0	666.2	670.7	672.9	671.8	679.7	685.4	692.1	700.0
32.5°	631.2	636.8	634.6	637.9	640.2	642.5	640.2	647.0	651.5	658.3	660.5
35°	596.2	600.7	597.3	599.5	604.1	604.1	602.9	607.5	609.7	613.1	614.2
37.5°	555.5	558.9	556.6	557.8	560.0	561.2	558.9	563.4	563.4	564.5	562.3
40°	511.5	517.1	513.7	513.7	516.0	517.1	513.7	516.0	518.3	512.6	508.1
42.5°	473.1	478.7	475.3	475.3	475.3	476.5	472.0	473.1	473.1	465.2	458.4
45°	435.8	440.3	437.0	433.6	434.7	435.8	431.3	430.2	426.8	417.8	407.6
47.5°	399.7	404.2	399.7	397.4	397.4	397.4	391.8	388.4	383.9	371.5	359.1
50°	362.4	367.0	363.6	361.3	359.1	359.1	354.5	350.0	343.2	330.8	317.3
52.5°	324.0	327.4	324.0	321.8	319.5	319.5	313.9	310.5	302.6	290.2	275.5
55°	280.0	282.3	278.9	276.6	275.5	275.5	271.0	267.6	260.8	250.7	237.1
57.5°	221.3	225.8	220.2	222.4	222.4	221.3	217.9	216.8	214.5	205.5	195.3
60°	158.1	158.1	156.9	161.5	160.3	162.6	160.3	161.5	162.6	155.8	149.0
62.5°	103.9	107.3	105.0	107.3	109.5	109.5	108.4	110.7	112.9	109.5	106.1
65°	70.0	70.0	70.0	71.1	71.1	72.3	71.1	72.3	73.4	72.3	70.0
67.5°	46.3	47.4	46.3	47.4	46.3	47.4	47.4	47.4	48.6	47.4	46.3
70°	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	31.6	30.5	29.4
72.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
75°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
77.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
80°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	4.5	5.6	4.5	4.5
82.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.1	2.3	1.1	1.1
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	840.0	836.7	853.6	838.9	846.8	845.7	846.8	853.6	853.6	857.0	855.9
5°	835.5	832.1	851.3	840.0	849.1	849.1	852.5	862.6	862.6	869.4	870.5
7.5°	828.8	829.9	850.2	843.4	853.6	854.7	860.4	872.8	876.2	885.2	889.7
10°	820.9	825.4	846.8	844.6	858.1	859.2	870.5	885.2	889.7	902.1	910.0
12.5°	817.5	825.4	850.2	852.5	866.0	871.7	884.1	903.3	911.2	925.9	937.1
15°	816.3	827.6	854.7	862.6	878.4	886.3	903.3	925.9	934.9	954.1	967.6
17.5°	810.7	825.4	854.7	867.1	884.1	892.0	913.4	939.4	950.7	972.1	988.0
20°	800.5	816.3	845.7	861.5	879.6	890.9	912.3	939.4	950.7	973.3	991.3
22.5°	787.0	802.8	831.0	849.1	864.9	877.3	899.9	925.9	936.0	957.5	975.5
25°	770.0	785.8	809.6	827.6	842.3	853.6	872.8	899.9	906.7	927.0	946.2
27.5°	746.3	761.0	779.1	796.0	809.6	818.6	835.5	859.2	864.9	885.2	901.0
30°	714.7	723.7	739.6	750.8	761.0	770.0	782.5	803.9	806.2	824.2	838.9
32.5°	671.8	676.3	687.6	693.3	702.3	705.7	715.8	733.9	731.7	748.6	761.0
35°	619.9	622.1	622.1	628.9	631.2	632.3	640.2	650.4	647.0	661.6	670.7
37.5°	563.4	562.3	555.5	555.5	556.6	553.3	556.6	561.2	556.6	567.9	575.8
40°	505.8	499.1	486.6	479.9	476.5	475.3	468.6	474.2	462.9	470.8	476.5
42.5°	450.5	439.2	420.0	406.5	400.8	395.2	383.9	383.9	369.2	374.9	376.0
45°	394.1	374.9	348.9	336.5	321.8	312.8	298.1	283.4	273.2	276.6	273.2
47.5°	342.1	319.5	289.0	267.6	250.7	238.2	217.9	201.0	190.8	186.3	181.8
50°	297.0	274.4	239.4	212.3	195.3	180.7	160.3	141.1	128.7	121.9	118.6
52.5°	256.3	232.6	198.7	170.5	152.4	138.9	116.3	97.1	83.6	75.6	71.1
55°	217.9	196.5	164.8	138.9	121.9	108.4	85.8	67.7	55.3	47.4	41.8
57.5°	179.5	160.3	134.4	109.5	94.8	82.4	63.2	47.4	37.3	30.5	26.0
60°	137.7	123.1	101.6	82.4	70.0	59.8	45.2	32.7	26.0	20.3	18.1
62.5°	97.1	88.1	72.3	58.7	50.8	42.9	31.6	23.7	18.1	14.7	13.5
65°	65.5	58.7	49.7	39.5	33.9	29.4	22.6	16.9	13.5	11.3	10.2
67.5°	42.9	39.5	32.7	27.1	23.7	20.3	15.8	12.4	10.2	9.0	7.9
70°	28.2	26.0	21.5	18.1	16.9	14.7	11.3	9.0	7.9	6.8	6.8
72.5°	18.1	15.8	14.7	12.4	11.3	10.2	7.9	6.8	5.6	5.6	5.6
75°	11.3	10.2	9.0	7.9	7.9	6.8	5.6	5.6	4.5	4.5	4.5
77.5°	6.8	6.8	5.6	5.6	4.5	4.5	4.5	3.4	3.4	3.4	3.4
80°	4.5	4.5	3.4	3.4	3.4	3.4	2.3	2.3	2.3	2.3	2.3
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	861.5	863.8	861.5	868.3	857.0	869.4	864.9	867.1	876.2	872.8	876.2
5°	878.4	883.0	883.0	890.9	880.7	895.4	890.9	895.4	904.4	904.4	908.9
7.5°	899.9	905.5	907.8	915.7	905.5	923.6	919.1	924.7	936.0	936.0	939.4
10°	922.5	929.2	933.8	942.8	931.5	951.8	947.3	955.2	965.4	966.5	972.1
12.5°	950.7	959.7	965.4	973.3	965.4	985.7	981.2	989.1	1002.6	1003.8	1010.5
15°	982.3	993.6	1000.4	1009.4	1000.4	1023.0	1018.4	1027.5	1037.6	1042.2	1048.9
17.5°	1002.6	1016.2	1021.8	1032.0	1023.0	1045.5	1039.9	1052.3	1061.3	1063.6	1071.5
20°	1006.0	1018.4	1026.3	1034.2	1026.3	1048.9	1043.3	1053.4	1064.7	1067.0	1072.6
22.5°	991.3	1001.5	1010.5	1017.3	1010.5	1033.1	1025.2	1036.5	1046.7	1048.9	1053.4
25°	957.5	969.9	978.9	984.6	977.8	999.2	992.5	1002.6	1011.7	1016.2	1017.3
27.5°	910.0	921.3	930.4	933.8	929.2	949.6	940.5	953.0	960.9	963.1	966.5
30°	845.7	855.9	864.9	867.1	863.8	878.4	873.9	885.2	893.1	895.4	897.6
32.5°	766.7	776.8	782.5	784.7	781.3	796.0	791.5	800.5	809.6	809.6	809.6
35°	677.5	686.5	689.9	696.7	688.7	703.4	698.9	706.8	714.7	714.7	715.8
37.5°	581.5	588.3	590.5	597.3	589.4	602.9	599.5	606.3	613.1	612.0	614.2
40°	478.7	485.5	487.8	493.4	486.6	497.9	495.7	502.4	508.1	508.1	508.1
42.5°	379.4	383.9	383.9	389.5	382.8	392.9	392.9	397.4	403.1	402.0	402.0
45°	275.5	274.4	276.6	275.5	275.5	284.5	284.5	286.8	291.3	289.0	290.2
47.5°	182.9	184.0	179.5	182.9	178.4	186.3	186.3	186.3	189.7	187.4	189.7
50°	116.3	112.9	110.7	110.7	109.5	115.2	112.9	114.0	116.3	114.0	116.3
52.5°	65.5	64.4	62.1	63.2	61.0	62.1	62.1	62.1	63.2	62.1	64.4
55°	38.4	35.0	33.9	33.9	32.7	33.9	32.7	32.7	32.7	31.6	32.7
57.5°	22.6	21.5	20.3	20.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2
60°	15.8	14.7	14.7	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
62.5°	12.4	11.3	11.3	11.3	10.2	10.2	10.2	10.2	10.2	11.3	10.2
65°	9.0	9.0	9.0	9.0	9.0	9.0	7.9	9.0	9.0	9.0	9.0
67.5°	7.9	7.9	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
70°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
72.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	0.0	1.1	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



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	879.6	875.0	864.9	871.7	872.8	868.3	873.9	880.7	873.9	868.3	872.8
5°	912.3	908.9	899.9	905.5	906.7	905.5	908.9	914.6	908.9	905.5	906.7
7.5°	945.1	942.8	932.6	939.4	941.7	939.4	942.8	948.4	942.8	939.4	941.7
10°	976.7	975.5	965.4	974.4	975.5	973.3	976.7	985.7	976.7	973.3	975.5
12.5°	1012.8	1015.1	1003.8	1013.9	1015.1	1012.8	1017.3	1024.1	1017.3	1012.8	1015.1
15°	1054.6	1053.4	1044.4	1052.3	1054.6	1052.3	1058.0	1067.0	1058.0	1052.3	1054.6
17.5°	1074.9	1074.9	1068.1	1076.0	1077.2	1077.2	1081.7	1088.4	1081.7	1077.2	1077.2
20°	1076.0	1077.2	1069.3	1078.3	1078.3	1078.3	1082.8	1086.2	1082.8	1078.3	1078.3
22.5°	1058.0	1059.1	1051.2	1059.1	1059.1	1060.2	1062.5	1064.7	1062.5	1060.2	1059.1
25°	1023.0	1024.1	1017.3	1024.1	1023.0	1023.0	1025.2	1028.6	1025.2	1023.0	1023.0
27.5°	971.0	972.1	963.1	971.0	969.9	968.8	972.1	973.3	972.1	968.8	969.9
30°	902.1	903.3	895.4	902.1	901.0	899.9	904.4	905.5	904.4	899.9	901.0
32.5°	819.7	817.5	811.8	817.5	816.3	816.3	818.6	822.0	818.6	816.3	816.3
35°	720.4	720.4	717.0	721.5	718.1	722.6	722.6	723.7	722.6	722.6	718.1
37.5°	618.7	618.7	616.5	618.7	617.6	622.1	622.1	625.5	622.1	622.1	617.6
40°	512.6	512.6	510.3	512.6	516.0	516.0	514.9	519.4	514.9	516.0	516.0
42.5°	405.3	405.3	404.2	409.9	409.9	409.9	406.5	411.0	406.5	409.9	409.9
45°	294.7	292.4	291.3	291.3	292.4	297.0	292.4	298.1	292.4	297.0	292.4
47.5°	187.4	188.6	189.7	193.1	190.8	189.7	189.7	193.1	189.7	189.7	190.8
50°	115.2	116.3	116.3	118.6	115.2	117.4	116.3	118.6	116.3	117.4	115.2
52.5°	63.2	63.2	63.2	65.5	63.2	64.4	63.2	65.5	63.2	64.4	63.2
55°	32.7	32.7	32.7	33.9	32.7	32.7	32.7	33.9	32.7	32.7	32.7
57.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
60°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
62.5°	11.3	10.2	10.2	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
65°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
67.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
70°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
72.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P212725

CATALOG NUMBER: LD4B20D010 EU4B10209030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	871.7	864.9	875.0	879.6	876.2	872.8	876.2	867.1	864.9	869.4	857.0
5°	905.5	899.9	908.9	912.3	908.9	904.4	904.4	895.4	890.9	895.4	880.7
7.5°	939.4	932.6	942.8	945.1	939.4	936.0	936.0	924.7	919.1	923.6	905.5
10°	974.4	965.4	975.5	976.7	972.1	966.5	965.4	955.2	947.3	951.8	931.5
12.5°	1013.9	1003.8	1015.1	1012.8	1010.5	1003.8	1002.6	989.1	981.2	985.7	965.4
15°	1052.3	1044.4	1053.4	1054.6	1048.9	1042.2	1037.6	1027.5	1018.4	1023.0	1000.4
17.5°	1076.0	1068.1	1074.9	1074.9	1071.5	1063.6	1061.3	1052.3	1039.9	1045.5	1023.0
20°	1078.3	1069.3	1077.2	1076.0	1072.6	1067.0	1064.7	1053.4	1043.3	1048.9	1026.3
22.5°	1059.1	1051.2	1059.1	1058.0	1053.4	1048.9	1046.7	1036.5	1025.2	1033.1	1010.5
25°	1024.1	1017.3	1024.1	1023.0	1017.3	1016.2	1011.7	1002.6	992.5	999.2	977.8
27.5°	971.0	963.1	972.1	971.0	966.5	963.1	960.9	953.0	940.5	949.6	929.2
30°	902.1	895.4	903.3	902.1	897.6	895.4	893.1	885.2	873.9	878.4	863.8
32.5°	817.5	811.8	817.5	819.7	809.6	809.6	809.6	800.5	791.5	796.0	781.3
35°	721.5	717.0	720.4	720.4	715.8	714.7	714.7	706.8	698.9	703.4	688.7
37.5°	618.7	616.5	618.7	618.7	614.2	612.0	613.1	606.3	599.5	602.9	589.4
40°	512.6	510.3	512.6	512.6	508.1	508.1	508.1	502.4	495.7	497.9	486.6
42.5°	409.9	404.2	405.3	405.3	402.0	402.0	403.1	397.4	392.9	392.9	382.8
45°	291.3	291.3	292.4	294.7	290.2	289.0	291.3	286.8	284.5	284.5	275.5
47.5°	193.1	189.7	188.6	187.4	189.7	187.4	189.7	186.3	186.3	186.3	178.4
50°	118.6	116.3	116.3	115.2	116.3	114.0	116.3	114.0	112.9	115.2	109.5
52.5°	65.5	63.2	63.2	63.2	64.4	62.1	63.2	62.1	62.1	62.1	61.0
55°	33.9	32.7	32.7	32.7	32.7	31.6	32.7	32.7	32.7	33.9	32.7
57.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
60°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
62.5°	11.3	10.2	10.2	11.3	10.2	11.3	10.2	10.2	10.2	10.2	10.2
65°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	7.9	9.0	9.0
67.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
70°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
72.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
75°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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



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CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	868.3	861.5	863.8	861.5	855.9	857.0	853.6	853.6	846.8	845.7	846.8
5°	890.9	883.0	883.0	878.4	870.5	869.4	862.6	862.6	852.5	849.1	849.1
7.5°	915.7	907.8	905.5	899.9	889.7	885.2	876.2	872.8	860.4	854.7	853.6
10°	942.8	933.8	929.2	922.5	910.0	902.1	889.7	885.2	870.5	859.2	858.1
12.5°	973.3	965.4	959.7	950.7	937.1	925.9	911.2	903.3	884.1	871.7	866.0
15°	1009.4	1000.4	993.6	982.3	967.6	954.1	934.9	925.9	903.3	886.3	878.4
17.5°	1032.0	1021.8	1016.2	1002.6	988.0	972.1	950.7	939.4	913.4	892.0	884.1
20°	1034.2	1026.3	1018.4	1006.0	991.3	973.3	950.7	939.4	912.3	890.9	879.6
22.5°	1017.3	1010.5	1001.5	991.3	975.5	957.5	936.0	925.9	899.9	877.3	864.9
25°	984.6	978.9	969.9	957.5	946.2	927.0	906.7	899.9	872.8	853.6	842.3
27.5°	933.8	930.4	921.3	910.0	901.0	885.2	864.9	859.2	835.5	818.6	809.6
30°	867.1	864.9	855.9	845.7	838.9	824.2	806.2	803.9	782.5	770.0	761.0
32.5°	784.7	782.5	776.8	766.7	761.0	748.6	731.7	733.9	715.8	705.7	702.3
35°	696.7	689.9	686.5	677.5	670.7	661.6	647.0	650.4	640.2	632.3	631.2
37.5°	597.3	590.5	588.3	581.5	575.8	567.9	556.6	561.2	556.6	553.3	556.6
40°	493.4	487.8	485.5	478.7	476.5	470.8	462.9	474.2	468.6	475.3	476.5
42.5°	389.5	383.9	383.9	379.4	376.0	374.9	369.2	383.9	383.9	395.2	400.8
45°	275.5	276.6	274.4	275.5	273.2	276.6	273.2	283.4	298.1	312.8	321.8
47.5°	182.9	179.5	184.0	182.9	181.8	186.3	190.8	201.0	217.9	238.2	250.7
50°	110.7	110.7	112.9	116.3	118.6	121.9	128.7	141.1	160.3	180.7	195.3
52.5°	63.2	62.1	64.4	65.5	71.1	75.6	83.6	97.1	116.3	138.9	152.4
55°	33.9	33.9	35.0	38.4	41.8	47.4	55.3	67.7	85.8	108.4	121.9
57.5°	20.3	20.3	21.5	22.6	26.0	30.5	37.3	47.4	63.2	82.4	94.8
60°	13.5	14.7	14.7	15.8	18.1	20.3	26.0	32.7	45.2	59.8	70.0
62.5°	11.3	11.3	11.3	12.4	13.5	14.7	18.1	23.7	31.6	42.9	50.8
65°	9.0	9.0	9.0	9.0	10.2	11.3	13.5	16.9	22.6	29.4	33.9
67.5°	6.8	6.8	7.9	7.9	7.9	9.0	10.2	12.4	15.8	20.3	23.7
70°	5.6	5.6	5.6	5.6	6.8	6.8	7.9	9.0	11.3	14.7	16.9
72.5°	4.5	4.5	4.5	4.5	5.6	5.6	5.6	6.8	7.9	10.2	11.3
75°	3.4	3.4	3.4	3.4	4.5	4.5	4.5	5.6	5.6	6.8	7.9
77.5°	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4	4.5	4.5	4.5
80°	1.1	1.1	1.1	2.3	2.3	2.3	2.3	2.3	2.3	3.4	3.4
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.3	2.3
85°	0.0	0.0	1.1	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P212725

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CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7	854.7
2.5°	838.9	853.6	836.7	840.0	834.4	844.6	831.0	834.4	836.7	834.4	835.5
5°	840.0	851.3	832.1	835.5	826.5	833.3	820.9	822.0	822.0	819.7	818.6
7.5°	843.4	850.2	829.9	828.8	817.5	824.2	809.6	807.3	806.2	802.8	803.9
10°	844.6	846.8	825.4	820.9	807.3	809.6	794.9	790.4	787.0	784.7	783.6
12.5°	852.5	850.2	825.4	817.5	800.5	799.4	783.6	776.8	771.2	768.9	767.8
15°	862.6	854.7	827.6	816.3	797.1	792.6	775.7	768.9	761.0	758.8	756.5
17.5°	867.1	854.7	825.4	810.7	789.2	783.6	766.7	757.6	749.7	746.3	744.1
20°	861.5	845.7	816.3	800.5	777.9	770.0	753.1	742.9	735.0	731.7	729.4
22.5°	849.1	831.0	802.8	787.0	764.4	754.2	739.6	730.5	721.5	720.4	717.0
25°	827.6	809.6	785.8	770.0	749.7	739.6	726.0	718.1	709.1	707.9	706.8
27.5°	796.0	779.1	761.0	746.3	728.3	720.4	710.2	702.3	694.4	694.4	692.1
30°	750.8	739.6	723.7	714.7	700.0	692.1	685.4	679.7	671.8	672.9	670.7
32.5°	693.3	687.6	676.3	671.8	660.5	658.3	651.5	647.0	640.2	642.5	640.2
35°	628.9	622.1	622.1	619.9	614.2	613.1	609.7	607.5	602.9	604.1	604.1
37.5°	555.5	555.5	562.3	563.4	562.3	564.5	563.4	563.4	558.9	561.2	560.0
40°	479.9	486.6	499.1	505.8	508.1	512.6	518.3	516.0	513.7	517.1	516.0
42.5°	406.5	420.0	439.2	450.5	458.4	465.2	473.1	473.1	472.0	476.5	475.3
45°	336.5	348.9	374.9	394.1	407.6	417.8	426.8	430.2	431.3	435.8	434.7
47.5°	267.6	289.0	319.5	342.1	359.1	371.5	383.9	388.4	391.8	397.4	397.4
50°	212.3	239.4	274.4	297.0	317.3	330.8	343.2	350.0	354.5	359.1	359.1
52.5°	170.5	198.7	232.6	256.3	275.5	290.2	302.6	310.5	313.9	319.5	319.5
55°	138.9	164.8	196.5	217.9	237.1	250.7	260.8	267.6	271.0	275.5	275.5
57.5°	109.5	134.4	160.3	179.5	195.3	205.5	214.5	216.8	217.9	221.3	222.4
60°	82.4	101.6	123.1	137.7	149.0	155.8	162.6	161.5	160.3	162.6	160.3
62.5°	58.7	72.3	88.1	97.1	106.1	109.5	112.9	110.7	108.4	109.5	109.5
65°	39.5	49.7	58.7	65.5	70.0	72.3	73.4	72.3	71.1	72.3	71.1
67.5°	27.1	32.7	39.5	42.9	46.3	47.4	48.6	47.4	47.4	47.4	46.3
70°	18.1	21.5	26.0	28.2	29.4	30.5	31.6	30.5	30.5	30.5	30.5
72.5°	12.4	14.7	15.8	18.1	19.2	19.2	19.2	19.2	19.2	19.2	19.2
75°	7.9	9.0	10.2	11.3	12.4	12.4	12.4	12.4	12.4	12.4	12.4
77.5°	5.6	5.6	6.8	6.8	7.9	7.9	7.9	7.9	7.9	7.9	7.9
80°	3.4	3.4	4.5	4.5	4.5	4.5	5.6	4.5	5.6	5.6	5.6
82.5°	2.3	2.3	2.3	2.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
85°	1.1	1.1	1.1	1.1	1.1	1.1	2.3	1.1	2.3	2.3	2.3
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: P212725

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CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	854.7	854.7	854.7	854.7
2.5°	835.5	833.3	826.5	834.4
5°	817.5	815.2	809.6	815.2
7.5°	799.4	796.0	791.5	794.9
10°	777.9	775.7	770.0	773.4
12.5°	762.1	757.6	754.2	755.4
15°	752.0	747.5	744.1	745.2
17.5°	738.4	733.9	730.5	730.5
20°	723.7	719.2	717.0	715.8
22.5°	711.3	707.9	706.8	703.4
25°	700.0	697.8	697.8	693.3
27.5°	687.6	684.2	684.2	679.7
30°	666.2	665.0	665.0	661.6
32.5°	637.9	634.6	636.8	631.2
35°	599.5	597.3	600.7	596.2
37.5°	557.8	556.6	558.9	555.5
40°	513.7	513.7	517.1	511.5
42.5°	475.3	475.3	478.7	473.1
45°	433.6	437.0	440.3	435.8
47.5°	397.4	399.7	404.2	399.7
50°	361.3	363.6	367.0	362.4
52.5°	321.8	324.0	327.4	324.0
55°	276.6	278.9	282.3	280.0
57.5°	222.4	220.2	225.8	221.3
60°	161.5	156.9	158.1	158.1
62.5°	107.3	105.0	107.3	103.9
65°	71.1	70.0	70.0	70.0
67.5°	47.4	46.3	47.4	46.3
70°	30.5	30.5	30.5	30.5
72.5°	19.2	19.2	19.2	19.2
75°	12.4	12.4	12.4	12.4
77.5°	7.9	7.9	7.9	7.9
80°	5.6	5.6	5.6	5.6
82.5°	3.4	3.4	3.4	3.4
85°	2.3	2.3	2.3	2.3
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°





















(END OF REPORT)