

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: P212721

Luminaire Tested: **LD4B20D010 EU4B10208040 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212721
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 EU4B10208040 4LBSWLI1
Description: PORTFOLIO 4 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: 1903.8 lumens
Efficiency: N/A
Efficacy: 91.5 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

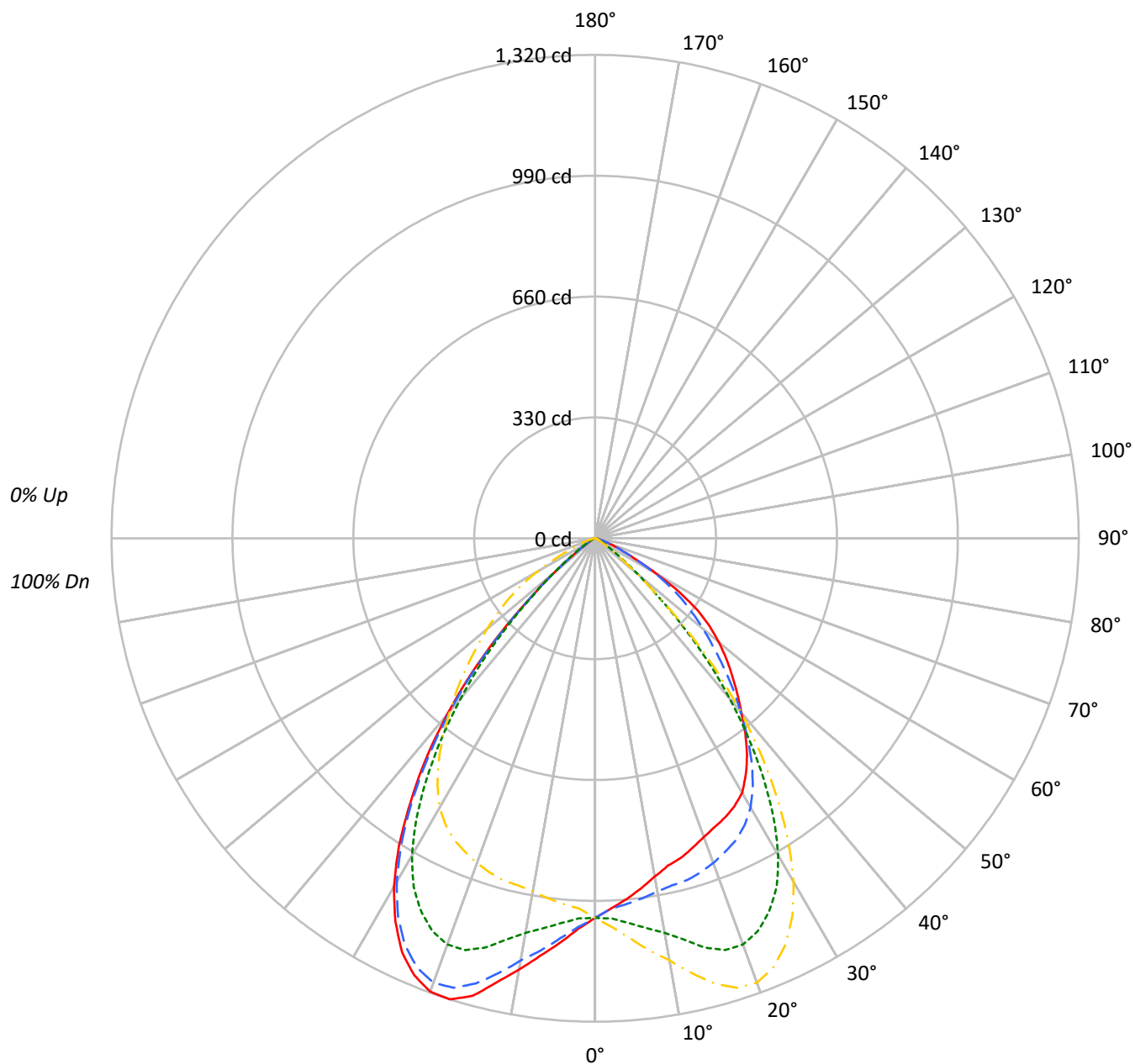
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	127835	127835	127835	127835
5°	122393	130528	137313	130528
10°	117471	137009	149709	137009
15°	115387	147732	165214	147732
20°	113935	154915	172885	154915
25°	114417	152986	169754	152986
30°	114269	142356	156399	142356
35°	108852	120808	132147	120808
40°	99862	91924	101408	91924
45°	92190	58506	63059	58506
50°	84336	28381	27594	28381
55°	73008	12365	8838	12365
60°	47291	6069	4046	6069
65°	24779	3998	3210	3998
70°	13344	2957	2452	2957
75°	7196	2621	1954	2621
80°	4830	1918	994	1918
85°	3821	1981	0	1981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	5.3
10°-20°	316.1	16.6
20°-30°	491.4	25.8
30°-40°	496.4	26.1
40°-50°	314.3	16.5
50°-60°	131.9	6.9
60°-70°	41.8	2.2
70°-80°	9.6	0.5
80°-90°	1.4	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°	908.5	47.7
0°-40°	1404.9	73.8
0°-60°	1851.1	97.2
0°-90°	1903.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1903.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1036	1036	1036	1036	1036	
5°	988	1054	1109	1054	988	93
15°	904	1157	1294	1157	904	255
25°	841	1124	1247	1124	841	387
35°	723	802	878	802	723	449
45°	528	335	362	335	528	408
55°	340	58	41	58	340	293
65°	85	14	11	14	85	94
75°	15	6	4	6	15	18
85°	3	1	0	1	3	3
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°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1011.8	1002.2	1010.4	1013.2	1013.2	1011.8	1014.5	1011.8	1007.7	1024.1	1011.8
5°	988.5	981.7	988.5	991.3	992.6	994.0	996.7	996.7	995.4	1010.4	1002.2
7.5°	963.9	959.8	965.2	969.4	974.8	973.5	977.6	978.9	981.7	999.5	991.3
10°	937.9	933.8	940.6	943.3	950.2	951.6	954.3	958.4	963.9	981.7	978.9
12.5°	916.0	914.6	918.7	924.2	931.0	932.4	935.1	942.0	950.2	969.4	970.7
15°	903.6	902.3	906.4	911.9	917.3	920.1	922.8	932.4	940.6	961.1	966.6
17.5°	885.8	885.8	889.9	895.4	902.3	905.0	909.1	918.7	929.7	950.2	957.0
20°	868.0	869.4	872.1	877.6	884.5	887.2	891.3	900.9	913.2	933.8	943.3
22.5°	853.0	857.1	858.5	862.6	869.4	873.5	874.9	885.8	896.8	914.6	926.9
25°	840.7	846.1	846.1	848.9	857.1	858.5	859.8	870.8	880.4	896.8	909.1
27.5°	824.2	829.7	829.7	833.8	839.3	842.0	842.0	851.6	861.2	873.5	883.1
30°	802.3	806.4	806.4	807.8	813.3	816.0	814.6	824.2	831.1	839.3	848.9
32.5°	765.4	772.2	769.5	773.6	776.3	779.0	776.3	784.5	790.0	798.2	801.0
35°	722.9	728.4	724.3	727.0	732.5	732.5	731.1	736.6	739.3	743.4	744.8
37.5°	673.6	677.7	675.0	676.4	679.1	680.5	677.7	683.2	683.2	684.6	681.8
40°	620.2	627.1	623.0	623.0	625.7	627.1	623.0	625.7	628.4	621.6	616.1
42.5°	573.7	580.5	576.4	576.4	576.4	577.8	572.3	573.7	573.7	564.1	555.9
45°	528.5	534.0	529.9	525.8	527.1	528.5	523.0	521.6	517.5	506.6	494.3
47.5°	484.7	490.2	484.7	481.9	481.9	481.9	475.1	471.0	465.5	450.4	435.4
50°	439.5	445.0	440.9	438.1	435.4	435.4	429.9	424.4	416.2	401.2	384.7
52.5°	392.9	397.1	392.9	390.2	387.5	387.5	380.6	376.5	366.9	351.9	334.1
55°	339.5	342.3	338.2	335.4	334.1	334.1	328.6	324.5	316.3	304.0	287.5
57.5°	268.4	273.8	267.0	269.7	269.7	268.4	264.2	262.9	260.1	249.2	236.9
60°	191.7	191.7	190.3	195.8	194.4	197.2	194.4	195.8	197.2	188.9	180.7
62.5°	126.0	130.1	127.3	130.1	132.8	132.8	131.4	134.2	136.9	132.8	128.7
65°	84.9	84.9	84.9	86.3	86.3	87.6	86.3	87.6	89.0	87.6	84.9
67.5°	56.1	57.5	56.1	57.5	56.1	57.5	57.5	57.5	58.9	57.5	56.1
70°	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	38.3	37.0	35.6
72.5°	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
75°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
77.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
80°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	5.5	6.8	5.5	5.5
82.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
85°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	1.4	2.7	1.4	1.4
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°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1018.6	1014.5	1035.1	1017.3	1026.9	1025.5	1026.9	1035.1	1035.1	1039.2	1037.8
5°	1013.2	1009.1	1032.3	1018.6	1029.6	1029.6	1033.7	1046.0	1046.0	1054.2	1055.6
7.5°	1005.0	1006.3	1031.0	1022.8	1035.1	1036.4	1043.3	1058.4	1062.5	1073.4	1078.9
10°	995.4	1000.8	1026.9	1024.1	1040.6	1041.9	1055.6	1073.4	1078.9	1093.9	1103.5
12.5°	991.3	1000.8	1031.0	1033.7	1050.1	1057.0	1072.0	1095.3	1104.9	1122.7	1136.4
15°	989.9	1003.6	1036.4	1046.0	1065.2	1074.8	1095.3	1122.7	1133.7	1156.9	1173.4
17.5°	983.0	1000.8	1036.4	1051.5	1072.0	1081.6	1107.6	1139.1	1152.8	1178.8	1198.0
20°	970.7	989.9	1025.5	1044.7	1066.6	1080.3	1106.3	1139.1	1152.8	1180.2	1202.1
22.5°	954.3	973.5	1007.7	1029.6	1048.8	1063.8	1091.2	1122.7	1135.0	1161.0	1182.9
25°	933.8	952.9	981.7	1003.6	1021.4	1035.1	1058.4	1091.2	1099.4	1124.1	1147.3
27.5°	905.0	922.8	944.7	965.2	981.7	992.6	1013.2	1041.9	1048.8	1073.4	1092.6
30°	866.7	877.6	896.8	910.5	922.8	933.8	948.8	974.8	977.6	999.5	1017.3
32.5°	814.6	820.1	833.8	840.7	851.6	855.7	868.0	889.9	887.2	907.7	922.8
35°	751.7	754.4	754.4	762.6	765.4	766.7	776.3	788.6	784.5	802.3	813.3
37.5°	683.2	681.8	673.6	673.6	675.0	670.9	675.0	680.5	675.0	688.7	698.3
40°	613.4	605.2	590.1	581.9	577.8	576.4	568.2	575.0	561.4	570.9	577.8
42.5°	546.3	532.6	509.3	492.9	486.0	479.2	465.5	465.5	447.7	454.6	455.9
45°	477.8	454.6	423.1	408.0	390.2	379.3	361.5	343.7	331.3	335.4	331.3
47.5°	414.9	387.5	350.5	324.5	304.0	288.9	264.2	243.7	231.4	225.9	220.4
50°	360.1	332.7	290.3	257.4	236.9	219.1	194.4	171.1	156.1	147.9	143.8
52.5°	310.8	282.0	241.0	206.7	184.8	168.4	141.0	117.7	101.3	91.7	86.3
55°	264.2	238.2	199.9	168.4	147.9	131.4	104.1	82.1	67.1	57.5	50.7
57.5°	217.7	194.4	162.9	132.8	115.0	99.9	76.7	57.5	45.2	37.0	31.5
60°	167.0	149.2	123.2	99.9	84.9	72.6	54.8	39.7	31.5	24.6	21.9
62.5°	117.7	106.8	87.6	71.2	61.6	52.0	38.3	28.8	21.9	17.8	16.4
65°	79.4	71.2	60.2	47.9	41.1	35.6	27.4	20.5	16.4	13.7	12.3
67.5°	52.0	47.9	39.7	32.9	28.8	24.6	19.2	15.1	12.3	11.0	9.6
70°	34.2	31.5	26.0	21.9	20.5	17.8	13.7	11.0	9.6	8.2	8.2
72.5°	21.9	19.2	17.8	15.1	13.7	12.3	9.6	8.2	6.8	6.8	6.8
75°	13.7	12.3	11.0	9.6	9.6	8.2	6.8	6.8	5.5	5.5	5.5
77.5°	8.2	8.2	6.8	6.8	5.5	5.5	5.5	4.1	4.1	4.1	4.1
80°	5.5	5.5	4.1	4.1	4.1	4.1	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	1.4	1.4	1.4	1.4	1.4
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1044.7	1047.4	1044.7	1052.9	1039.2	1054.2	1048.8	1051.5	1062.5	1058.4	1062.5
5°	1065.2	1070.7	1070.7	1080.3	1067.9	1085.7	1080.3	1085.7	1096.7	1096.7	1102.2
7.5°	1091.2	1098.1	1100.8	1110.4	1098.1	1120.0	1114.5	1121.3	1135.0	1135.0	1139.1
10°	1118.6	1126.8	1132.3	1143.2	1129.5	1154.2	1148.7	1158.3	1170.6	1172.0	1178.8
12.5°	1152.8	1163.8	1170.6	1180.2	1170.6	1195.3	1189.8	1199.4	1215.8	1217.2	1225.4
15°	1191.2	1204.9	1213.1	1224.0	1213.1	1240.4	1235.0	1245.9	1258.2	1263.7	1271.9
17.5°	1215.8	1232.2	1239.1	1251.4	1240.4	1267.8	1261.0	1276.0	1287.0	1289.7	1299.3
20°	1219.9	1235.0	1244.6	1254.1	1244.6	1271.9	1265.1	1277.4	1291.1	1293.8	1300.7
22.5°	1202.1	1214.4	1225.4	1233.6	1225.4	1252.8	1243.2	1256.9	1269.2	1271.9	1277.4
25°	1161.0	1176.1	1187.1	1193.9	1185.7	1211.7	1203.5	1215.8	1226.8	1232.2	1233.6
27.5°	1103.5	1117.2	1128.2	1132.3	1126.8	1151.5	1140.5	1155.6	1165.1	1167.9	1172.0
30°	1025.5	1037.8	1048.8	1051.5	1047.4	1065.2	1059.7	1073.4	1083.0	1085.7	1088.5
32.5°	929.7	942.0	948.8	951.6	947.5	965.2	959.8	970.7	981.7	981.7	981.7
35°	821.5	832.4	836.5	844.8	835.2	853.0	847.5	857.1	866.7	866.7	868.0
37.5°	705.1	713.3	716.1	724.3	714.7	731.1	727.0	735.2	743.4	742.1	744.8
40°	580.5	588.7	591.5	598.3	590.1	603.8	601.1	609.3	616.1	616.1	616.1
42.5°	460.0	465.5	465.5	472.4	464.1	476.5	476.5	481.9	488.8	487.4	487.4
45°	334.1	332.7	335.4	334.1	334.1	345.0	345.0	347.8	353.2	350.5	351.9
47.5°	221.8	223.2	217.7	221.8	216.3	225.9	225.9	225.9	230.0	227.3	230.0
50°	141.0	136.9	134.2	134.2	132.8	139.7	136.9	138.3	141.0	138.3	141.0
52.5°	79.4	78.0	75.3	76.7	73.9	75.3	75.3	75.3	76.7	75.3	78.0
55°	46.6	42.4	41.1	41.1	39.7	41.1	39.7	39.7	39.7	38.3	39.7
57.5°	27.4	26.0	24.6	24.6	23.3	23.3	23.3	23.3	23.3	23.3	23.3
60°	19.2	17.8	17.8	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
62.5°	15.1	13.7	13.7	13.7	12.3	12.3	12.3	12.3	12.3	13.7	12.3
65°	11.0	11.0	11.0	11.0	11.0	11.0	9.6	11.0	11.0	11.0	11.0
67.5°	9.6	9.6	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
70°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
72.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	2.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	0.0	1.4	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: P212721

CATALOG NUMBER: LD4B20D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1066.6	1061.1	1048.8	1057.0	1058.4	1052.9	1059.7	1067.9	1059.7	1052.9	1058.4
5°	1106.3	1102.2	1091.2	1098.1	1099.4	1098.1	1102.2	1109.0	1102.2	1098.1	1099.4
7.5°	1146.0	1143.2	1130.9	1139.1	1141.9	1139.1	1143.2	1150.1	1143.2	1139.1	1141.9
10°	1184.3	1182.9	1170.6	1181.6	1182.9	1180.2	1184.3	1195.3	1184.3	1180.2	1182.9
12.5°	1228.1	1230.9	1217.2	1229.5	1230.9	1228.1	1233.6	1241.8	1233.6	1228.1	1230.9
15°	1278.8	1277.4	1266.5	1276.0	1278.8	1276.0	1282.9	1293.8	1282.9	1276.0	1278.8
17.5°	1303.4	1303.4	1295.2	1304.8	1306.2	1306.2	1311.6	1319.9	1311.6	1306.2	1306.2
20°	1304.8	1306.2	1296.6	1307.5	1307.5	1307.5	1313.0	1317.1	1313.0	1307.5	1307.5
22.5°	1282.9	1284.3	1274.7	1284.3	1284.3	1285.6	1288.4	1291.1	1288.4	1285.6	1284.3
25°	1240.4	1241.8	1233.6	1241.8	1240.4	1240.4	1243.2	1247.3	1243.2	1240.4	1240.4
27.5°	1177.5	1178.8	1167.9	1177.5	1176.1	1174.7	1178.8	1180.2	1178.8	1174.7	1176.1
30°	1093.9	1095.3	1085.7	1093.9	1092.6	1091.2	1096.7	1098.1	1096.7	1091.2	1092.6
32.5°	994.0	991.3	984.4	991.3	989.9	989.9	992.6	996.7	992.6	989.9	989.9
35°	873.5	873.5	869.4	874.9	870.8	876.3	876.3	877.6	876.3	876.3	870.8
37.5°	750.3	750.3	747.6	750.3	748.9	754.4	754.4	758.5	754.4	754.4	748.9
40°	621.6	621.6	618.9	621.6	625.7	625.7	624.3	629.8	624.3	625.7	625.7
42.5°	491.5	491.5	490.2	497.0	497.0	497.0	492.9	498.4	492.9	497.0	497.0
45°	357.3	354.6	353.2	353.2	354.6	360.1	354.6	361.5	354.6	360.1	354.6
47.5°	227.3	228.6	230.0	234.1	231.4	230.0	230.0	234.1	230.0	230.0	231.4
50°	139.7	141.0	141.0	143.8	139.7	142.4	141.0	143.8	141.0	142.4	139.7
52.5°	76.7	76.7	76.7	79.4	76.7	78.0	76.7	79.4	76.7	78.0	76.7
55°	39.7	39.7	39.7	41.1	39.7	39.7	39.7	41.1	39.7	39.7	39.7
57.5°	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
60°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
62.5°	13.7	12.3	12.3	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
65°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
67.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
70°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
72.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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: P212721

CATALOG NUMBER: LD4B20D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1057.0	1048.8	1061.1	1066.6	1062.5	1058.4	1062.5	1051.5	1048.8	1054.2	1039.2
5°	1098.1	1091.2	1102.2	1106.3	1102.2	1096.7	1096.7	1085.7	1080.3	1085.7	1067.9
7.5°	1139.1	1130.9	1143.2	1146.0	1139.1	1135.0	1135.0	1121.3	1114.5	1120.0	1098.1
10°	1181.6	1170.6	1182.9	1184.3	1178.8	1172.0	1170.6	1158.3	1148.7	1154.2	1129.5
12.5°	1229.5	1217.2	1230.9	1228.1	1225.4	1217.2	1215.8	1199.4	1189.8	1195.3	1170.6
15°	1276.0	1266.5	1277.4	1278.8	1271.9	1263.7	1258.2	1245.9	1235.0	1240.4	1213.1
17.5°	1304.8	1295.2	1303.4	1303.4	1299.3	1289.7	1287.0	1276.0	1261.0	1267.8	1240.4
20°	1307.5	1296.6	1306.2	1304.8	1300.7	1293.8	1291.1	1277.4	1265.1	1271.9	1244.6
22.5°	1284.3	1274.7	1284.3	1282.9	1277.4	1271.9	1269.2	1256.9	1243.2	1252.8	1225.4
25°	1241.8	1233.6	1241.8	1240.4	1233.6	1232.2	1226.8	1215.8	1203.5	1211.7	1185.7
27.5°	1177.5	1167.9	1178.8	1177.5	1172.0	1167.9	1165.1	1155.6	1140.5	1151.5	1126.8
30°	1093.9	1085.7	1095.3	1093.9	1088.5	1085.7	1083.0	1073.4	1059.7	1065.2	1047.4
32.5°	991.3	984.4	991.3	994.0	981.7	981.7	981.7	970.7	959.8	965.2	947.5
35°	874.9	869.4	873.5	873.5	868.0	866.7	866.7	857.1	847.5	853.0	835.2
37.5°	750.3	747.6	750.3	750.3	744.8	742.1	743.4	735.2	727.0	731.1	714.7
40°	621.6	618.9	621.6	621.6	616.1	616.1	616.1	609.3	601.1	603.8	590.1
42.5°	497.0	490.2	491.5	491.5	487.4	487.4	488.8	481.9	476.5	476.5	464.1
45°	353.2	353.2	354.6	357.3	351.9	350.5	353.2	347.8	345.0	345.0	334.1
47.5°	234.1	230.0	228.6	227.3	230.0	227.3	230.0	225.9	225.9	225.9	216.3
50°	143.8	141.0	141.0	139.7	141.0	138.3	141.0	138.3	136.9	139.7	132.8
52.5°	79.4	76.7	76.7	76.7	78.0	75.3	76.7	75.3	75.3	75.3	73.9
55°	41.1	39.7	39.7	39.7	39.7	38.3	39.7	39.7	39.7	41.1	39.7
57.5°	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
60°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
62.5°	13.7	12.3	12.3	13.7	12.3	13.7	12.3	12.3	12.3	12.3	12.3
65°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	9.6	11.0	11.0
67.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
70°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
72.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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: P212721

CATALOG NUMBER: LD4B20D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1052.9	1044.7	1047.4	1044.7	1037.8	1039.2	1035.1	1035.1	1026.9	1025.5	1026.9
5°	1080.3	1070.7	1070.7	1065.2	1055.6	1054.2	1046.0	1046.0	1033.7	1029.6	1029.6
7.5°	1110.4	1100.8	1098.1	1091.2	1078.9	1073.4	1062.5	1058.4	1043.3	1036.4	1035.1
10°	1143.2	1132.3	1126.8	1118.6	1103.5	1093.9	1078.9	1073.4	1055.6	1041.9	1040.6
12.5°	1180.2	1170.6	1163.8	1152.8	1136.4	1122.7	1104.9	1095.3	1072.0	1057.0	1050.1
15°	1224.0	1213.1	1204.9	1191.2	1173.4	1156.9	1133.7	1122.7	1095.3	1074.8	1065.2
17.5°	1251.4	1239.1	1232.2	1215.8	1198.0	1178.8	1152.8	1139.1	1107.6	1081.6	1072.0
20°	1254.1	1244.6	1235.0	1219.9	1202.1	1180.2	1152.8	1139.1	1106.3	1080.3	1066.6
22.5°	1233.6	1225.4	1214.4	1202.1	1182.9	1161.0	1135.0	1122.7	1091.2	1063.8	1048.8
25°	1193.9	1187.1	1176.1	1161.0	1147.3	1124.1	1099.4	1091.2	1058.4	1035.1	1021.4
27.5°	1132.3	1128.2	1117.2	1103.5	1092.6	1073.4	1048.8	1041.9	1013.2	992.6	981.7
30°	1051.5	1048.8	1037.8	1025.5	1017.3	999.5	977.6	974.8	948.8	933.8	922.8
32.5°	951.6	948.8	942.0	929.7	922.8	907.7	887.2	889.9	868.0	855.7	851.6
35°	844.8	836.5	832.4	821.5	813.3	802.3	784.5	788.6	776.3	766.7	765.4
37.5°	724.3	716.1	713.3	705.1	698.3	688.7	675.0	680.5	675.0	670.9	675.0
40°	598.3	591.5	588.7	580.5	577.8	570.9	561.4	575.0	568.2	576.4	577.8
42.5°	472.4	465.5	465.5	460.0	455.9	454.6	447.7	465.5	465.5	479.2	486.0
45°	334.1	335.4	332.7	334.1	331.3	335.4	331.3	343.7	361.5	379.3	390.2
47.5°	221.8	217.7	223.2	221.8	220.4	225.9	231.4	243.7	264.2	288.9	304.0
50°	134.2	134.2	136.9	141.0	143.8	147.9	156.1	171.1	194.4	219.1	236.9
52.5°	76.7	75.3	78.0	79.4	86.3	91.7	101.3	117.7	141.0	168.4	184.8
55°	41.1	41.1	42.4	46.6	50.7	57.5	67.1	82.1	104.1	131.4	147.9
57.5°	24.6	24.6	26.0	27.4	31.5	37.0	45.2	57.5	76.7	99.9	115.0
60°	16.4	17.8	17.8	19.2	21.9	24.6	31.5	39.7	54.8	72.6	84.9
62.5°	13.7	13.7	13.7	15.1	16.4	17.8	21.9	28.8	38.3	52.0	61.6
65°	11.0	11.0	11.0	11.0	12.3	13.7	16.4	20.5	27.4	35.6	41.1
67.5°	8.2	8.2	9.6	9.6	9.6	11.0	12.3	15.1	19.2	24.6	28.8
70°	6.8	6.8	6.8	6.8	8.2	8.2	9.6	11.0	13.7	17.8	20.5
72.5°	5.5	5.5	5.5	5.5	6.8	6.8	6.8	8.2	9.6	12.3	13.7
75°	4.1	4.1	4.1	4.1	5.5	5.5	5.5	6.8	6.8	8.2	9.6
77.5°	2.7	2.7	2.7	2.7	4.1	4.1	4.1	4.1	5.5	5.5	5.5
80°	1.4	1.4	1.4	2.7	2.7	2.7	2.7	2.7	2.7	4.1	4.1
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.7	2.7
85°	0.0	0.0	1.4	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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: P212721

CATALOG NUMBER: LD4B20D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4	1036.4
2.5°	1017.3	1035.1	1014.5	1018.6	1011.8	1024.1	1007.7	1011.8	1014.5	1011.8	1013.2
5°	1018.6	1032.3	1009.1	1013.2	1002.2	1010.4	995.4	996.7	996.7	994.0	992.6
7.5°	1022.8	1031.0	1006.3	1005.0	991.3	999.5	981.7	978.9	977.6	973.5	974.8
10°	1024.1	1026.9	1000.8	995.4	978.9	981.7	963.9	958.4	954.3	951.6	950.2
12.5°	1033.7	1031.0	1000.8	991.3	970.7	969.4	950.2	942.0	935.1	932.4	931.0
15°	1046.0	1036.4	1003.6	989.9	966.6	961.1	940.6	932.4	922.8	920.1	917.3
17.5°	1051.5	1036.4	1000.8	983.0	957.0	950.2	929.7	918.7	909.1	905.0	902.3
20°	1044.7	1025.5	989.9	970.7	943.3	933.8	913.2	900.9	891.3	887.2	884.5
22.5°	1029.6	1007.7	973.5	954.3	926.9	914.6	896.8	885.8	874.9	873.5	869.4
25°	1003.6	981.7	952.9	933.8	909.1	896.8	880.4	870.8	859.8	858.5	857.1
27.5°	965.2	944.7	922.8	905.0	883.1	873.5	861.2	851.6	842.0	842.0	839.3
30°	910.5	896.8	877.6	866.7	848.9	839.3	831.1	824.2	814.6	816.0	813.3
32.5°	840.7	833.8	820.1	814.6	801.0	798.2	790.0	784.5	776.3	779.0	776.3
35°	762.6	754.4	754.4	751.7	744.8	743.4	739.3	736.6	731.1	732.5	732.5
37.5°	673.6	673.6	681.8	683.2	681.8	684.6	683.2	683.2	677.7	680.5	679.1
40°	581.9	590.1	605.2	613.4	616.1	621.6	628.4	625.7	623.0	627.1	625.7
42.5°	492.9	509.3	532.6	546.3	555.9	564.1	573.7	573.7	572.3	577.8	576.4
45°	408.0	423.1	454.6	477.8	494.3	506.6	517.5	521.6	523.0	528.5	527.1
47.5°	324.5	350.5	387.5	414.9	435.4	450.4	465.5	471.0	475.1	481.9	481.9
50°	257.4	290.3	332.7	360.1	384.7	401.2	416.2	424.4	429.9	435.4	435.4
52.5°	206.7	241.0	282.0	310.8	334.1	351.9	366.9	376.5	380.6	387.5	387.5
55°	168.4	199.9	238.2	264.2	287.5	304.0	316.3	324.5	328.6	334.1	334.1
57.5°	132.8	162.9	194.4	217.7	236.9	249.2	260.1	262.9	264.2	268.4	269.7
60°	99.9	123.2	149.2	167.0	180.7	188.9	197.2	195.8	194.4	197.2	194.4
62.5°	71.2	87.6	106.8	117.7	128.7	132.8	136.9	134.2	131.4	132.8	132.8
65°	47.9	60.2	71.2	79.4	84.9	87.6	89.0	87.6	86.3	87.6	86.3
67.5°	32.9	39.7	47.9	52.0	56.1	57.5	58.9	57.5	57.5	57.5	56.1
70°	21.9	26.0	31.5	34.2	35.6	37.0	38.3	37.0	37.0	37.0	37.0
72.5°	15.1	17.8	19.2	21.9	23.3	23.3	23.3	23.3	23.3	23.3	23.3
75°	9.6	11.0	12.3	13.7	15.1	15.1	15.1	15.1	15.1	15.1	15.1
77.5°	6.8	6.8	8.2	8.2	9.6	9.6	9.6	9.6	9.6	9.6	9.6
80°	4.1	4.1	5.5	5.5	5.5	5.5	6.8	5.5	6.8	6.8	6.8
82.5°	2.7	2.7	2.7	2.7	4.1	4.1	4.1	4.1	4.1	4.1	4.1
85°	1.4	1.4	1.4	1.4	1.4	1.4	2.7	1.4	2.7	2.7	2.7
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: P212721

CATALOG NUMBER: LD4B20D010 EU4B10208040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1036.4	1036.4	1036.4	1036.4
2.5°	1013.2	1010.4	1002.2	1011.8
5°	991.3	988.5	981.7	988.5
7.5°	969.4	965.2	959.8	963.9
10°	943.3	940.6	933.8	937.9
12.5°	924.2	918.7	914.6	916.0
15°	911.9	906.4	902.3	903.6
17.5°	895.4	889.9	885.8	885.8
20°	877.6	872.1	869.4	868.0
22.5°	862.6	858.5	857.1	853.0
25°	848.9	846.1	846.1	840.7
27.5°	833.8	829.7	829.7	824.2
30°	807.8	806.4	806.4	802.3
32.5°	773.6	769.5	772.2	765.4
35°	727.0	724.3	728.4	722.9
37.5°	676.4	675.0	677.7	673.6
40°	623.0	623.0	627.1	620.2
42.5°	576.4	576.4	580.5	573.7
45°	525.8	529.9	534.0	528.5
47.5°	481.9	484.7	490.2	484.7
50°	438.1	440.9	445.0	439.5
52.5°	390.2	392.9	397.1	392.9
55°	335.4	338.2	342.3	339.5
57.5°	269.7	267.0	273.8	268.4
60°	195.8	190.3	191.7	191.7
62.5°	130.1	127.3	130.1	126.0
65°	86.3	84.9	84.9	84.9
67.5°	57.5	56.1	57.5	56.1
70°	37.0	37.0	37.0	37.0
72.5°	23.3	23.3	23.3	23.3
75°	15.1	15.1	15.1	15.1
77.5°	9.6	9.6	9.6	9.6
80°	6.8	6.8	6.8	6.8
82.5°	4.1	4.1	4.1	4.1
85°	2.7	2.7	2.7	2.7
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)