

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: P212736

Luminaire Tested: **LD4B30D010 EU4B30509024 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212736
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: LD4B30D010 EU4B30509024 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1913.9 lumens
Efficiency: N/A
Efficacy: 68.4 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

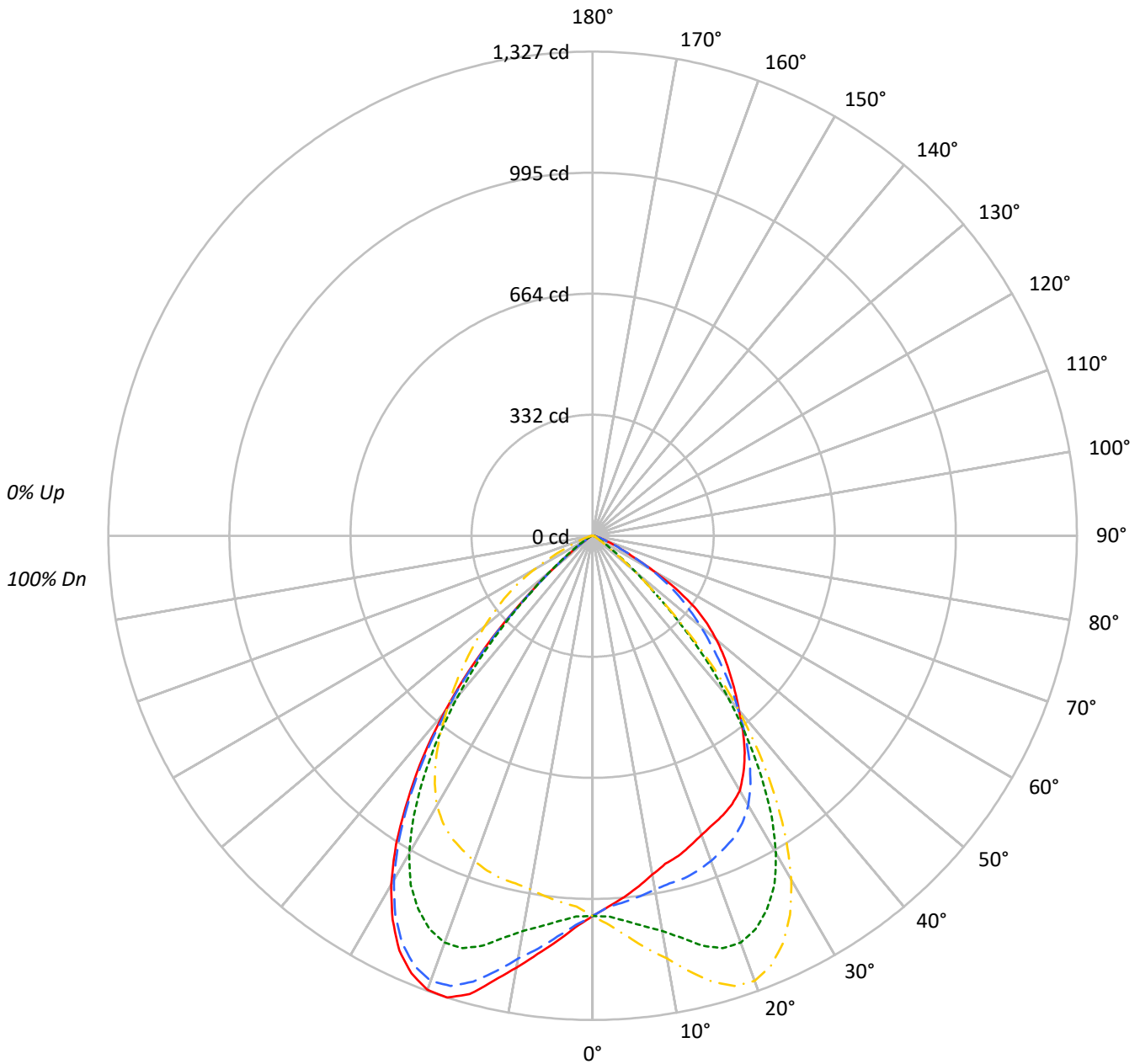
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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°	128514	128514	128514	128514
5°	123049	131221	138043	131221
10°	118084	137748	150499	137748
15°	116000	148524	166095	148524
20°	114539	155742	173804	155742
25°	115015	153789	170652	153789
30°	114882	143111	157225	143111
35°	109424	121456	132854	121456
40°	100394	92423	101939	92423
45°	92678	58820	63390	58820
50°	84778	28534	27728	28534
55°	73417	12430	8881	12430
60°	47537	6118	4070	6118
65°	24896	4028	3210	4028
70°	13416	2993	2488	2993
75°	7196	2621	1954	2621
80°	4901	1989	994	1989
85°	3963	1981	0	1981



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	5.3
10°-20°	317.8	16.6
20°-30°	494.0	25.8
30°-40°	499.0	26.1
40°-50°	316.0	16.5
50°-60°	132.6	6.9
60°-70°	42.0	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°	913.4	47.7
0°-40°	1412.4	73.8
0°-60°	1860.9	97.2
0°-90°	1913.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1913.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1042	1042	1042	1042	1042	
5°	994	1060	1115	1060	994	93
15°	908	1163	1301	1163	908	256
25°	845	1130	1254	1130	845	389
35°	727	807	882	807	727	451
45°	531	337	363	337	531	410
55°	341	58	41	58	341	295
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°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1017.2	1007.5	1015.8	1018.5	1018.5	1017.2	1019.9	1017.2	1013.0	1029.6	1017.2
5°	993.8	986.9	993.8	996.5	997.9	999.3	1002.0	1002.0	1000.7	1015.8	1007.5
7.5°	969.0	964.9	970.4	974.5	980.0	978.6	982.8	984.1	986.9	1004.8	996.5
10°	942.8	938.7	945.6	948.3	955.2	956.6	959.4	963.5	969.0	986.9	984.1
12.5°	920.8	919.4	923.6	929.1	936.0	937.3	940.1	947.0	955.2	974.5	975.9
15°	908.4	907.1	911.2	916.7	922.2	924.9	927.7	937.3	945.6	966.2	971.7
17.5°	890.5	890.5	894.7	900.2	907.1	909.8	913.9	923.6	934.6	955.2	962.1
20°	872.6	874.0	876.8	882.3	889.2	891.9	896.0	905.7	918.1	938.7	948.3
22.5°	857.5	861.6	863.0	867.1	874.0	878.2	879.5	890.5	901.5	919.4	931.8
25°	845.1	850.6	850.6	853.4	861.6	863.0	864.4	875.4	885.0	901.5	913.9
27.5°	828.6	834.1	834.1	838.2	843.7	846.5	846.5	856.1	865.8	878.2	887.8
30°	806.6	810.7	810.7	812.1	817.6	820.3	819.0	828.6	835.5	843.7	853.4
32.5°	769.4	776.3	773.5	777.7	780.4	783.2	780.4	788.7	794.2	802.4	805.2
35°	726.7	732.3	728.1	730.9	736.4	736.4	735.0	740.5	743.3	747.4	748.8
37.5°	677.2	681.3	678.6	679.9	682.7	684.1	681.3	686.8	686.8	688.2	685.5
40°	623.5	630.4	626.3	626.3	629.0	630.4	626.3	629.0	631.8	624.9	619.4
42.5°	576.7	583.6	579.5	579.5	579.5	580.8	575.3	576.7	576.7	567.1	558.8
45°	531.3	536.8	532.7	528.5	529.9	531.3	525.8	524.4	520.3	509.3	496.9
47.5°	487.2	492.8	487.2	484.5	484.5	484.5	477.6	473.5	468.0	452.8	437.7
50°	441.8	447.3	443.2	440.5	437.7	437.7	432.2	426.7	418.4	403.3	386.8
52.5°	395.0	399.2	395.0	392.3	389.5	389.5	382.6	378.5	368.9	353.7	335.8
55°	341.4	344.1	340.0	337.2	335.8	335.8	330.3	326.2	318.0	305.6	289.0
57.5°	269.8	275.3	268.4	271.2	271.2	269.8	265.6	264.3	261.5	250.5	238.1
60°	192.7	192.7	191.3	196.8	195.5	198.2	195.5	196.8	198.2	189.9	181.7
62.5°	126.6	130.8	128.0	130.8	133.5	133.5	132.1	134.9	137.6	133.5	129.4
65°	85.3	85.3	85.3	86.7	86.7	88.1	86.7	88.1	89.5	88.1	85.3
67.5°	56.4	57.8	56.4	57.8	56.4	57.8	57.8	57.8	59.2	57.8	56.4
70°	37.2	37.2	37.2	37.2	37.2	37.2	37.2	37.2	38.5	37.2	35.8
72.5°	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
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°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	5.5	6.9	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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4	2.8	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°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1024.1	1019.9	1040.6	1022.7	1032.3	1030.9	1032.3	1040.6	1040.6	1044.7	1043.3
5°	1018.5	1014.4	1037.8	1024.1	1035.1	1035.1	1039.2	1051.6	1051.6	1059.8	1061.2
7.5°	1010.3	1011.7	1036.4	1028.2	1040.6	1041.9	1048.8	1064.0	1068.1	1079.1	1084.6
10°	1000.7	1006.2	1032.3	1029.6	1046.1	1047.4	1061.2	1079.1	1084.6	1099.8	1109.4
12.5°	996.5	1006.2	1036.4	1039.2	1055.7	1062.6	1077.7	1101.1	1110.8	1128.7	1142.4
15°	995.1	1008.9	1041.9	1051.6	1070.8	1080.5	1101.1	1128.7	1139.7	1163.1	1179.6
17.5°	988.3	1006.2	1041.9	1057.1	1077.7	1087.4	1113.5	1145.2	1158.9	1185.1	1204.4
20°	975.9	995.1	1030.9	1050.2	1072.2	1086.0	1112.1	1145.2	1158.9	1186.5	1208.5
22.5°	959.4	978.6	1013.0	1035.1	1054.3	1069.5	1097.0	1128.7	1141.0	1167.2	1189.2
25°	938.7	958.0	986.9	1008.9	1026.8	1040.6	1064.0	1097.0	1105.3	1130.0	1153.4
27.5°	909.8	927.7	949.7	970.4	986.9	997.9	1018.5	1047.4	1054.3	1079.1	1098.4
30°	871.3	882.3	901.5	915.3	927.7	938.7	953.9	980.0	982.8	1004.8	1022.7
32.5°	819.0	824.5	838.2	845.1	856.1	860.3	872.6	894.7	891.9	912.6	927.7
35°	755.7	758.4	758.4	766.7	769.4	770.8	780.4	792.8	788.7	806.6	817.6
37.5°	686.8	685.5	677.2	677.2	678.6	674.4	678.6	684.1	678.6	692.3	702.0
40°	616.6	608.4	593.2	585.0	580.8	579.5	571.2	578.1	564.3	574.0	580.8
42.5°	549.2	535.4	512.0	495.5	488.6	481.7	468.0	468.0	450.1	457.0	458.3
45°	480.4	457.0	425.3	410.2	392.3	381.3	363.4	345.5	333.1	337.2	333.1
47.5°	417.1	389.5	352.4	326.2	305.6	290.4	265.6	245.0	232.6	227.1	221.6
50°	362.0	334.5	291.8	258.8	238.1	220.2	195.5	172.1	156.9	148.7	144.5
52.5°	312.4	283.5	242.2	207.8	185.8	169.3	141.8	118.4	101.9	92.2	86.7
55°	265.6	239.5	201.0	169.3	148.7	132.1	104.6	82.6	67.4	57.8	50.9
57.5°	218.8	195.5	163.8	133.5	115.6	100.5	77.1	57.8	45.4	37.2	31.7
60°	167.9	150.0	123.9	100.5	85.3	72.9	55.1	39.9	31.7	24.8	22.0
62.5°	118.4	107.4	88.1	71.6	61.9	52.3	38.5	28.9	22.0	17.9	16.5
65°	79.8	71.6	60.6	48.2	41.3	35.8	27.5	20.6	16.5	13.8	12.4
67.5°	52.3	48.2	39.9	33.0	28.9	24.8	19.3	15.1	12.4	11.0	9.6
70°	34.4	31.7	26.2	22.0	20.6	17.9	13.8	11.0	9.6	8.3	8.3
72.5°	22.0	19.3	17.9	15.1	13.8	12.4	9.6	8.3	6.9	6.9	6.9
75°	13.8	12.4	11.0	9.6	9.6	8.3	6.9	6.9	5.5	5.5	5.5
77.5°	8.3	8.3	6.9	6.9	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	2.8	2.8	2.8	2.8	2.8
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	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°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1050.2	1053.0	1050.2	1058.5	1044.7	1059.8	1054.3	1057.1	1068.1	1064.0	1068.1
5°	1070.8	1076.4	1076.4	1086.0	1073.6	1091.5	1086.0	1091.5	1102.5	1102.5	1108.0
7.5°	1097.0	1103.9	1106.6	1116.3	1103.9	1125.9	1120.4	1127.3	1141.0	1141.0	1145.2
10°	1124.5	1132.8	1138.3	1149.3	1135.5	1160.3	1154.8	1164.4	1176.8	1178.2	1185.1
12.5°	1158.9	1170.0	1176.8	1186.5	1176.8	1201.6	1196.1	1205.7	1222.3	1223.6	1231.9
15°	1197.5	1211.2	1219.5	1230.5	1219.5	1247.0	1241.5	1252.5	1264.9	1270.4	1278.7
17.5°	1222.3	1238.8	1245.7	1258.0	1247.0	1274.6	1267.7	1282.8	1293.8	1296.6	1306.2
20°	1226.4	1241.5	1251.2	1260.8	1251.2	1278.7	1271.8	1284.2	1298.0	1300.7	1307.6
22.5°	1208.5	1220.9	1231.9	1240.1	1231.9	1259.4	1249.8	1263.5	1275.9	1278.7	1284.2
25°	1167.2	1182.3	1193.3	1200.2	1192.0	1218.1	1209.9	1222.3	1233.3	1238.8	1240.1
27.5°	1109.4	1123.2	1134.2	1138.3	1132.8	1157.6	1146.6	1161.7	1171.3	1174.1	1178.2
30°	1030.9	1043.3	1054.3	1057.1	1053.0	1070.8	1065.3	1079.1	1088.7	1091.5	1094.2
32.5°	934.6	947.0	953.9	956.6	952.5	970.4	964.9	975.9	986.9	986.9	986.9
35°	825.8	836.9	841.0	849.2	839.6	857.5	852.0	861.6	871.3	871.3	872.6
37.5°	708.9	717.1	719.9	728.1	718.5	735.0	730.9	739.1	747.4	746.0	748.8
40°	583.6	591.9	594.6	601.5	593.2	607.0	604.2	612.5	619.4	619.4	619.4
42.5°	462.5	468.0	468.0	474.9	466.6	479.0	479.0	484.5	491.4	490.0	490.0
45°	335.8	334.5	337.2	335.8	335.8	346.9	346.9	349.6	355.1	352.4	353.7
47.5°	223.0	224.4	218.8	223.0	217.5	227.1	227.1	227.1	231.2	228.5	231.2
50°	141.8	137.6	134.9	134.9	133.5	140.4	137.6	139.0	141.8	139.0	141.8
52.5°	79.8	78.5	75.7	77.1	74.3	75.7	75.7	75.7	77.1	75.7	78.5
55°	46.8	42.7	41.3	41.3	39.9	41.3	39.9	39.9	39.9	38.5	39.9
57.5°	27.5	26.2	24.8	24.8	23.4	23.4	23.4	23.4	23.4	23.4	23.4
60°	19.3	17.9	17.9	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
62.5°	15.1	13.8	13.8	13.8	12.4	12.4	12.4	12.4	12.4	13.8	12.4
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	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
70°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	2.8	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: P212736

CATALOG NUMBER: LD4B30D010 EU4B30509024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1072.2	1066.7	1054.3	1062.6	1064.0	1058.5	1065.3	1073.6	1065.3	1058.5	1064.0
5°	1112.1	1108.0	1097.0	1103.9	1105.3	1103.9	1108.0	1114.9	1108.0	1103.9	1105.3
7.5°	1152.1	1149.3	1136.9	1145.2	1147.9	1145.2	1149.3	1156.2	1149.3	1145.2	1147.9
10°	1190.6	1189.2	1176.8	1187.8	1189.2	1186.5	1190.6	1201.6	1190.6	1186.5	1189.2
12.5°	1234.6	1237.4	1223.6	1236.0	1237.4	1234.6	1240.1	1248.4	1240.1	1234.6	1237.4
15°	1285.6	1284.2	1273.2	1282.8	1285.6	1282.8	1289.7	1300.7	1289.7	1282.8	1285.6
17.5°	1310.3	1310.3	1302.1	1311.7	1313.1	1313.1	1318.6	1326.9	1318.6	1313.1	1313.1
20°	1311.7	1313.1	1303.5	1314.5	1314.5	1314.5	1320.0	1324.1	1320.0	1314.5	1314.5
22.5°	1289.7	1291.1	1281.4	1291.1	1291.1	1292.5	1295.2	1298.0	1295.2	1292.5	1291.1
25°	1247.0	1248.4	1240.1	1248.4	1247.0	1247.0	1249.8	1253.9	1249.8	1247.0	1247.0
27.5°	1183.7	1185.1	1174.1	1183.7	1182.3	1181.0	1185.1	1186.5	1185.1	1181.0	1182.3
30°	1099.8	1101.1	1091.5	1099.8	1098.4	1097.0	1102.5	1103.9	1102.5	1097.0	1098.4
32.5°	999.3	996.5	989.6	996.5	995.1	995.1	997.9	1002.0	997.9	995.1	995.1
35°	878.2	878.2	874.0	879.5	875.4	880.9	880.9	882.3	880.9	880.9	875.4
37.5°	754.3	754.3	751.5	754.3	752.9	758.4	758.4	762.5	758.4	758.4	752.9
40°	624.9	624.9	622.1	624.9	629.0	629.0	627.6	633.1	627.6	629.0	629.0
42.5°	494.1	494.1	492.8	499.6	499.6	499.6	495.5	501.0	495.5	499.6	499.6
45°	359.2	356.5	355.1	355.1	356.5	362.0	356.5	363.4	356.5	362.0	356.5
47.5°	228.5	229.9	231.2	235.4	232.6	231.2	231.2	235.4	231.2	231.2	232.6
50°	140.4	141.8	141.8	144.5	140.4	143.1	141.8	144.5	141.8	143.1	140.4
52.5°	77.1	77.1	77.1	79.8	77.1	78.5	77.1	79.8	77.1	78.5	77.1
55°	39.9	39.9	39.9	41.3	39.9	39.9	39.9	41.3	39.9	39.9	39.9
57.5°	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
60°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
62.5°	13.8	12.4	12.4	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
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°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
70°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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: P212736

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1062.6	1054.3	1066.7	1072.2	1068.1	1064.0	1068.1	1057.1	1054.3	1059.8	1044.7
5°	1103.9	1097.0	1108.0	1112.1	1108.0	1102.5	1102.5	1091.5	1086.0	1091.5	1073.6
7.5°	1145.2	1136.9	1149.3	1152.1	1145.2	1141.0	1141.0	1127.3	1120.4	1125.9	1103.9
10°	1187.8	1176.8	1189.2	1190.6	1185.1	1178.2	1176.8	1164.4	1154.8	1160.3	1135.5
12.5°	1236.0	1223.6	1237.4	1234.6	1231.9	1223.6	1222.3	1205.7	1196.1	1201.6	1176.8
15°	1282.8	1273.2	1284.2	1285.6	1278.7	1270.4	1264.9	1252.5	1241.5	1247.0	1219.5
17.5°	1311.7	1302.1	1310.3	1310.3	1306.2	1296.6	1293.8	1282.8	1267.7	1274.6	1247.0
20°	1314.5	1303.5	1313.1	1311.7	1307.6	1300.7	1298.0	1284.2	1271.8	1278.7	1251.2
22.5°	1291.1	1281.4	1291.1	1289.7	1284.2	1278.7	1275.9	1263.5	1249.8	1259.4	1231.9
25°	1248.4	1240.1	1248.4	1247.0	1240.1	1238.8	1233.3	1222.3	1209.9	1218.1	1192.0
27.5°	1183.7	1174.1	1185.1	1183.7	1178.2	1174.1	1171.3	1161.7	1146.6	1157.6	1132.8
30°	1099.8	1091.5	1101.1	1099.8	1094.2	1091.5	1088.7	1079.1	1065.3	1070.8	1053.0
32.5°	996.5	989.6	996.5	999.3	986.9	986.9	986.9	975.9	964.9	970.4	952.5
35°	879.5	874.0	878.2	878.2	872.6	871.3	871.3	861.6	852.0	857.5	839.6
37.5°	754.3	751.5	754.3	754.3	748.8	746.0	747.4	739.1	730.9	735.0	718.5
40°	624.9	622.1	624.9	624.9	619.4	619.4	619.4	612.5	604.2	607.0	593.2
42.5°	499.6	492.8	494.1	494.1	490.0	490.0	491.4	484.5	479.0	479.0	466.6
45°	355.1	355.1	356.5	359.2	353.7	352.4	355.1	349.6	346.9	346.9	335.8
47.5°	235.4	231.2	229.9	228.5	231.2	228.5	231.2	227.1	227.1	227.1	217.5
50°	144.5	141.8	141.8	140.4	141.8	139.0	141.8	139.0	137.6	140.4	133.5
52.5°	79.8	77.1	77.1	77.1	78.5	75.7	77.1	75.7	75.7	75.7	74.3
55°	41.3	39.9	39.9	39.9	39.9	38.5	39.9	39.9	39.9	41.3	39.9
57.5°	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
60°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
62.5°	13.8	12.4	12.4	13.8	12.4	13.8	12.4	12.4	12.4	12.4	12.4
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°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
70°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
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°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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: P212736

CATALOG NUMBER: LD4B30D010 EU4B30509024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1058.5	1050.2	1053.0	1050.2	1043.3	1044.7	1040.6	1040.6	1032.3	1030.9	1032.3
5°	1086.0	1076.4	1076.4	1070.8	1061.2	1059.8	1051.6	1051.6	1039.2	1035.1	1035.1
7.5°	1116.3	1106.6	1103.9	1097.0	1084.6	1079.1	1068.1	1064.0	1048.8	1041.9	1040.6
10°	1149.3	1138.3	1132.8	1124.5	1109.4	1099.8	1084.6	1079.1	1061.2	1047.4	1046.1
12.5°	1186.5	1176.8	1170.0	1158.9	1142.4	1128.7	1110.8	1101.1	1077.7	1062.6	1055.7
15°	1230.5	1219.5	1211.2	1197.5	1179.6	1163.1	1139.7	1128.7	1101.1	1080.5	1070.8
17.5°	1258.0	1245.7	1238.8	1222.3	1204.4	1185.1	1158.9	1145.2	1113.5	1087.4	1077.7
20°	1260.8	1251.2	1241.5	1226.4	1208.5	1186.5	1158.9	1145.2	1112.1	1086.0	1072.2
22.5°	1240.1	1231.9	1220.9	1208.5	1189.2	1167.2	1141.0	1128.7	1097.0	1069.5	1054.3
25°	1200.2	1193.3	1182.3	1167.2	1153.4	1130.0	1105.3	1097.0	1064.0	1040.6	1026.8
27.5°	1138.3	1134.2	1123.2	1109.4	1098.4	1079.1	1054.3	1047.4	1018.5	997.9	986.9
30°	1057.1	1054.3	1043.3	1030.9	1022.7	1004.8	982.8	980.0	953.9	938.7	927.7
32.5°	956.6	953.9	947.0	934.6	927.7	912.6	891.9	894.7	872.6	860.3	856.1
35°	849.2	841.0	836.9	825.8	817.6	806.6	788.7	792.8	780.4	770.8	769.4
37.5°	728.1	719.9	717.1	708.9	702.0	692.3	678.6	684.1	678.6	674.4	678.6
40°	601.5	594.6	591.9	583.6	580.8	574.0	564.3	578.1	571.2	579.5	580.8
42.5°	474.9	468.0	468.0	462.5	458.3	457.0	450.1	468.0	468.0	481.7	488.6
45°	335.8	337.2	334.5	335.8	333.1	337.2	333.1	345.5	363.4	381.3	392.3
47.5°	223.0	218.8	224.4	223.0	221.6	227.1	232.6	245.0	265.6	290.4	305.6
50°	134.9	134.9	137.6	141.8	144.5	148.7	156.9	172.1	195.5	220.2	238.1
52.5°	77.1	75.7	78.5	79.8	86.7	92.2	101.9	118.4	141.8	169.3	185.8
55°	41.3	41.3	42.7	46.8	50.9	57.8	67.4	82.6	104.6	132.1	148.7
57.5°	24.8	24.8	26.2	27.5	31.7	37.2	45.4	57.8	77.1	100.5	115.6
60°	16.5	17.9	17.9	19.3	22.0	24.8	31.7	39.9	55.1	72.9	85.3
62.5°	13.8	13.8	13.8	15.1	16.5	17.9	22.0	28.9	38.5	52.3	61.9
65°	11.0	11.0	11.0	11.0	12.4	13.8	16.5	20.6	27.5	35.8	41.3
67.5°	8.3	8.3	9.6	9.6	9.6	11.0	12.4	15.1	19.3	24.8	28.9
70°	6.9	6.9	6.9	6.9	8.3	8.3	9.6	11.0	13.8	17.9	20.6
72.5°	5.5	5.5	5.5	5.5	6.9	6.9	6.9	8.3	9.6	12.4	13.8
75°	4.1	4.1	4.1	4.1	5.5	5.5	5.5	6.9	6.9	8.3	9.6
77.5°	2.8	2.8	2.8	2.8	4.1	4.1	4.1	4.1	5.5	5.5	5.5
80°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8	2.8	4.1	4.1
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8
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: P212736

CATALOG NUMBER: LD4B30D010 EU4B30509024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1022.7	1040.6	1019.9	1024.1	1017.2	1029.6	1013.0	1017.2	1019.9	1017.2	1018.5
5°	1024.1	1037.8	1014.4	1018.5	1007.5	1015.8	1000.7	1002.0	1002.0	999.3	997.9
7.5°	1028.2	1036.4	1011.7	1010.3	996.5	1004.8	986.9	984.1	982.8	978.6	980.0
10°	1029.6	1032.3	1006.2	1000.7	984.1	986.9	969.0	963.5	959.4	956.6	955.2
12.5°	1039.2	1036.4	1006.2	996.5	975.9	974.5	955.2	947.0	940.1	937.3	936.0
15°	1051.6	1041.9	1008.9	995.1	971.7	966.2	945.6	937.3	927.7	924.9	922.2
17.5°	1057.1	1041.9	1006.2	988.3	962.1	955.2	934.6	923.6	913.9	909.8	907.1
20°	1050.2	1030.9	995.1	975.9	948.3	938.7	918.1	905.7	896.0	891.9	889.2
22.5°	1035.1	1013.0	978.6	959.4	931.8	919.4	901.5	890.5	879.5	878.2	874.0
25°	1008.9	986.9	958.0	938.7	913.9	901.5	885.0	875.4	864.4	863.0	861.6
27.5°	970.4	949.7	927.7	909.8	887.8	878.2	865.8	856.1	846.5	846.5	843.7
30°	915.3	901.5	882.3	871.3	853.4	843.7	835.5	828.6	819.0	820.3	817.6
32.5°	845.1	838.2	824.5	819.0	805.2	802.4	794.2	788.7	780.4	783.2	780.4
35°	766.7	758.4	758.4	755.7	748.8	747.4	743.3	740.5	735.0	736.4	736.4
37.5°	677.2	677.2	685.5	686.8	685.5	688.2	686.8	686.8	681.3	684.1	682.7
40°	585.0	593.2	608.4	616.6	619.4	624.9	631.8	629.0	626.3	630.4	629.0
42.5°	495.5	512.0	535.4	549.2	558.8	567.1	576.7	576.7	575.3	580.8	579.5
45°	410.2	425.3	457.0	480.4	496.9	509.3	520.3	524.4	525.8	531.3	529.9
47.5°	326.2	352.4	389.5	417.1	437.7	452.8	468.0	473.5	477.6	484.5	484.5
50°	258.8	291.8	334.5	362.0	386.8	403.3	418.4	426.7	432.2	437.7	437.7
52.5°	207.8	242.2	283.5	312.4	335.8	353.7	368.9	378.5	382.6	389.5	389.5
55°	169.3	201.0	239.5	265.6	289.0	305.6	318.0	326.2	330.3	335.8	335.8
57.5°	133.5	163.8	195.5	218.8	238.1	250.5	261.5	264.3	265.6	269.8	271.2
60°	100.5	123.9	150.0	167.9	181.7	189.9	198.2	196.8	195.5	198.2	195.5
62.5°	71.6	88.1	107.4	118.4	129.4	133.5	137.6	134.9	132.1	133.5	133.5
65°	48.2	60.6	71.6	79.8	85.3	88.1	89.5	88.1	86.7	88.1	86.7
67.5°	33.0	39.9	48.2	52.3	56.4	57.8	59.2	57.8	57.8	57.8	56.4
70°	22.0	26.2	31.7	34.4	35.8	37.2	38.5	37.2	37.2	37.2	37.2
72.5°	15.1	17.9	19.3	22.0	23.4	23.4	23.4	23.4	23.4	23.4	23.4
75°	9.6	11.0	12.4	13.8	15.1	15.1	15.1	15.1	15.1	15.1	15.1
77.5°	6.9	6.9	8.3	8.3	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	6.9	5.5	6.9	6.9	6.9
82.5°	2.8	2.8	2.8	2.8	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	2.8	1.4	2.8	2.8	2.8
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: P212736

CATALOG NUMBER: LD4B30D010 EU4B30509024 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1041.9	1041.9	1041.9	1041.9
2.5°	1018.5	1015.8	1007.5	1017.2
5°	996.5	993.8	986.9	993.8
7.5°	974.5	970.4	964.9	969.0
10°	948.3	945.6	938.7	942.8
12.5°	929.1	923.6	919.4	920.8
15°	916.7	911.2	907.1	908.4
17.5°	900.2	894.7	890.5	890.5
20°	882.3	876.8	874.0	872.6
22.5°	867.1	863.0	861.6	857.5
25°	853.4	850.6	850.6	845.1
27.5°	838.2	834.1	834.1	828.6
30°	812.1	810.7	810.7	806.6
32.5°	777.7	773.5	776.3	769.4
35°	730.9	728.1	732.3	726.7
37.5°	679.9	678.6	681.3	677.2
40°	626.3	626.3	630.4	623.5
42.5°	579.5	579.5	583.6	576.7
45°	528.5	532.7	536.8	531.3
47.5°	484.5	487.2	492.8	487.2
50°	440.5	443.2	447.3	441.8
52.5°	392.3	395.0	399.2	395.0
55°	337.2	340.0	344.1	341.4
57.5°	271.2	268.4	275.3	269.8
60°	196.8	191.3	192.7	192.7
62.5°	130.8	128.0	130.8	126.6
65°	86.7	85.3	85.3	85.3
67.5°	57.8	56.4	57.8	56.4
70°	37.2	37.2	37.2	37.2
72.5°	23.4	23.4	23.4	23.4
75°	15.1	15.1	15.1	15.1
77.5°	9.6	9.6	9.6	9.6
80°	6.9	6.9	6.9	6.9
82.5°	4.1	4.1	4.1	4.1
85°	2.8	2.8	2.8	2.8
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)