

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: P252160

Luminaire Tested: **LD6B20D010 EU6B10209027 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252160
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: LD6B20D010 EU6B10209027 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2130.0 lumens
Efficiency: N/A
Efficacy: 102.4 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

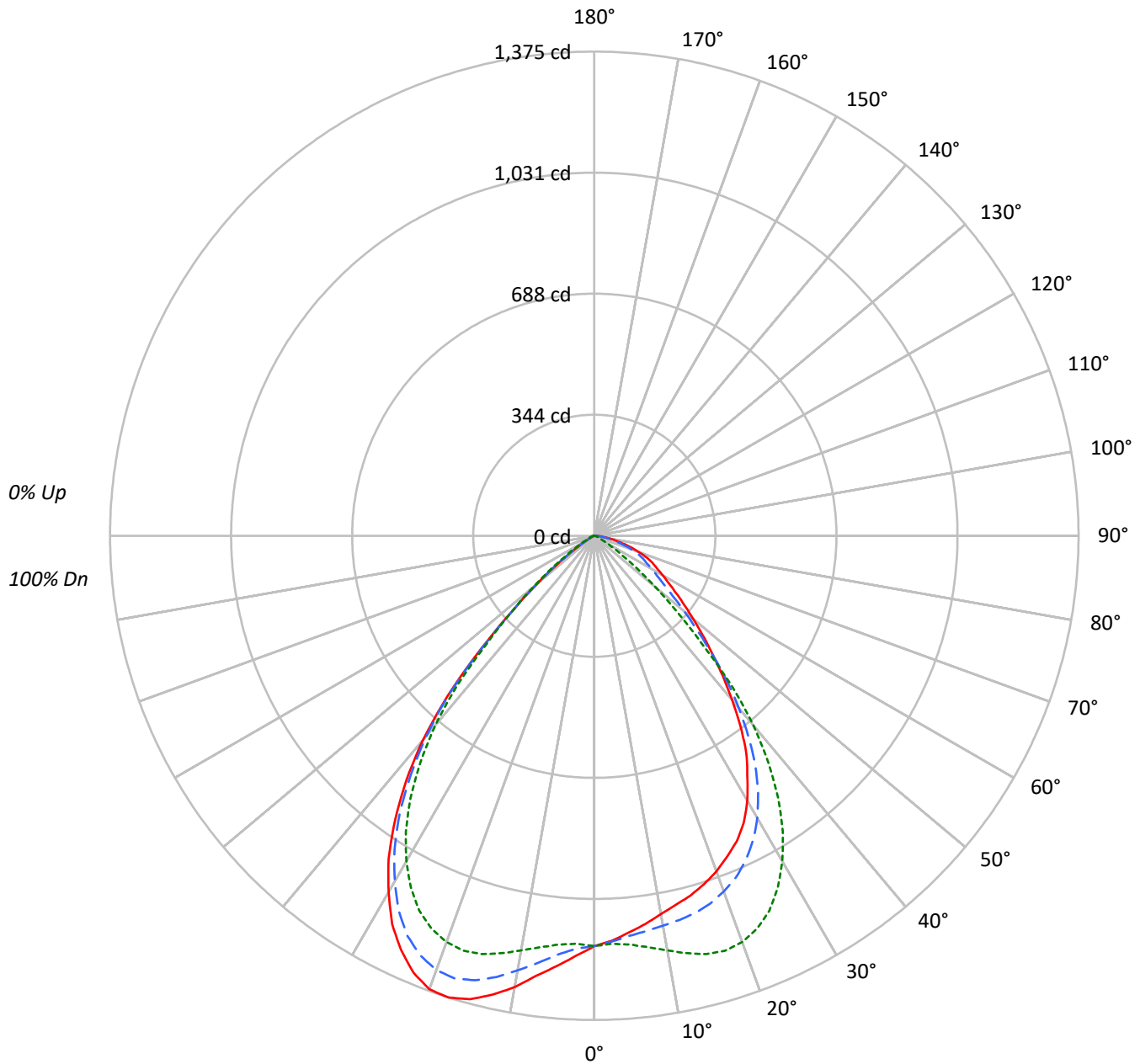
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	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
1	112	108	105	103	109	106	103	101		102	100	98		98	96	95		95	93	92
2	105	98	93	89	102	97	92	88		93	89	86		90	87	84		87	85	82
3	98	89	83	78	95	88	82	78		85	80	76		83	78	75		80	77	74
4	91	82	75	69	89	80	74	69		78	72	68		76	71	67		74	70	66
5	85	75	67	62	83	74	67	62		72	66	61		70	65	61		68	64	60
6	80	69	61	56	78	68	61	56		66	60	55		64	59	55		63	58	54
7	74	63	56	51	73	62	55	50		61	55	50		60	54	50		58	53	50
8	70	58	51	46	69	58	51	46		57	50	46		55	50	46		54	49	45
9	66	54	47	42	64	54	47	42		53	46	42		52	46	42		51	45	42
10	62	50	43	39	61	50	43	39		49	43	39		48	43	39		47	42	38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	76025	76025	76025
5°	74049	76315	80323
10°	72249	79192	86201
15°	71405	83070	92026
20°	70386	85236	95137
25°	68890	84604	93422
30°	65457	80396	87952
35°	59892	72492	78521
40°	51806	59871	64419
45°	43687	39268	42146
50°	37087	22725	21375
55°	32189	10897	8235
60°	29071	5089	2036
65°	28204	2918	695
70°	25294	2346	629
75°	20771	1689	277
80°	15479	827	0
85°	13324	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.6	5.3
10°-20°	343.0	16.1
20°-30°	524.1	24.6
30°-40°	548.2	25.7
40°-50°	355.6	16.7
50°-60°	141.2	6.6
60°-70°	67.0	3.1
70°-80°	31.8	1.5
80°-90°	6.5	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°	979.7	46.0
0°-40°	1527.9	71.7
0°-60°	2024.7	95.1
0°-90°	2130.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2130.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1165	1165	1165	1165	1165	
5°	1131	1141	1165	1194	1226	107
15°	1057	1108	1230	1307	1362	298
25°	957	1017	1175	1254	1298	438
35°	752	798	910	964	986	465
45°	474	469	426	451	457	368
55°	283	241	96	75	72	256
65°	183	152	19	4	4	178
75°	82	67	7	2	1	89
85°	18	11	0	0	0	21
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°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3
2.5°	1150.8	1153.0	1140.8	1137.4	1146.3	1149.7	1150.8	1147.5	1148.6	1153.0	1153.0
5°	1130.7	1133.0	1121.8	1118.5	1127.4	1129.6	1133.0	1131.9	1135.2	1141.9	1140.8
7.5°	1111.8	1115.1	1102.9	1098.4	1109.6	1115.1	1117.4	1117.4	1121.8	1130.7	1131.9
10°	1090.6	1095.1	1084.0	1081.7	1094.0	1099.6	1100.7	1102.9	1109.6	1121.8	1124.1
12.5°	1072.8	1077.3	1069.5	1066.1	1079.5	1085.1	1087.3	1091.8	1099.6	1115.1	1117.4
15°	1057.2	1060.6	1051.6	1049.4	1062.8	1069.5	1070.6	1077.3	1087.3	1105.1	1108.5
17.5°	1037.2	1039.4	1032.7	1030.5	1043.8	1050.5	1051.6	1059.4	1071.7	1089.5	1095.1
20°	1013.8	1016.0	1009.3	1007.1	1020.5	1028.3	1029.4	1036.1	1050.5	1069.5	1075.0
22.5°	985.9	990.4	982.6	980.3	993.7	1000.4	1003.7	1009.3	1023.8	1042.7	1050.5
25°	957.0	957.0	951.4	950.3	962.5	970.3	969.2	977.0	991.5	1010.4	1017.1
27.5°	919.1	918.0	912.4	911.3	924.6	931.3	929.1	936.9	950.3	969.2	975.9
30°	868.9	871.2	863.4	861.1	872.3	883.4	882.3	890.1	903.5	921.3	925.8
32.5°	808.8	811.0	809.9	806.6	816.6	822.2	825.5	831.1	842.2	861.1	865.6
35°	752.0	748.6	744.2	744.2	754.2	763.1	759.8	766.5	777.6	796.5	797.6
37.5°	681.8	680.7	678.4	676.2	687.4	689.6	690.7	695.2	705.2	720.8	718.6
40°	608.3	609.4	608.3	603.8	610.5	619.4	618.3	620.5	629.4	640.6	637.2
42.5°	539.2	539.2	539.2	534.7	542.5	547.0	549.2	548.1	550.3	560.4	555.9
45°	473.5	474.6	473.5	472.3	473.5	475.7	473.5	472.3	472.3	475.7	469.0
47.5°	416.6	416.6	413.3	410.0	413.3	414.4	411.1	407.7	406.6	405.5	394.4
50°	365.4	364.3	363.2	357.6	360.9	362.1	357.6	355.4	350.9	345.4	332.0
52.5°	320.8	319.7	318.6	313.0	315.3	316.4	311.9	307.5	301.9	297.4	280.7
55°	283.0	281.9	281.9	278.5	276.3	278.5	274.1	270.7	262.9	257.3	240.6
57.5°	250.7	250.7	248.4	245.1	246.2	246.2	241.7	237.3	230.6	223.9	210.6
60°	222.8	222.8	222.8	219.5	219.5	219.5	217.2	212.8	207.2	200.5	187.2
62.5°	200.5	200.5	199.4	196.1	197.2	197.2	195.0	190.5	184.9	180.5	167.1
65°	182.7	182.7	182.7	179.4	179.4	180.5	178.2	173.8	169.3	163.8	151.5
67.5°	160.4	159.3	159.3	157.1	158.2	159.3	157.1	153.7	148.2	144.8	133.7
70°	132.6	133.7	134.8	131.5	132.6	132.6	131.5	128.1	124.8	121.4	111.4
72.5°	108.1	108.1	106.9	105.8	105.8	106.9	104.7	101.4	99.1	96.9	89.1
75°	82.4	81.3	82.4	80.2	80.2	80.2	78.0	76.9	75.8	72.4	66.8
77.5°	60.2	59.0	59.0	56.8	57.9	57.9	56.8	54.6	52.4	51.2	46.8
80°	41.2	41.2	41.2	40.1	40.1	39.0	39.0	37.9	35.6	34.5	32.3
82.5°	27.9	27.9	27.9	26.7	26.7	26.7	25.6	24.5	23.4	22.3	20.1
85°	17.8	17.8	17.8	16.7	16.7	16.7	15.6	15.6	14.5	13.4	11.1
87.5°	10.0	10.0	10.0	8.9	8.9	8.9	8.9	8.9	7.8	6.7	5.6
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°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3
2.5°	1160.8	1145.2	1155.3	1155.3	1151.9	1160.8	1166.4	1170.8	1169.7	1159.7	1158.6
5°	1151.9	1138.5	1149.7	1150.8	1147.5	1159.7	1167.5	1173.1	1174.2	1165.3	1166.4
7.5°	1145.2	1134.1	1148.6	1153.0	1151.9	1163.1	1172.0	1180.9	1185.3	1178.6	1179.8
10°	1141.9	1133.0	1148.6	1155.3	1156.4	1168.6	1182.0	1194.2	1199.8	1195.4	1198.7
12.5°	1137.4	1131.9	1149.7	1159.7	1164.2	1176.4	1193.1	1207.6	1216.5	1214.3	1221.0
15°	1133.0	1128.5	1149.7	1164.2	1169.7	1180.9	1199.8	1221.0	1231.0	1229.9	1238.8
17.5°	1121.8	1120.7	1143.0	1158.6	1166.4	1179.8	1197.6	1223.2	1233.2	1235.5	1246.6
20°	1104.0	1104.0	1128.5	1145.2	1154.1	1166.4	1188.7	1213.2	1225.4	1227.7	1239.9
22.5°	1079.5	1081.7	1105.1	1121.8	1135.2	1144.1	1167.5	1193.1	1204.3	1207.6	1221.0
25°	1047.2	1049.4	1071.7	1088.4	1102.9	1112.9	1135.2	1158.6	1172.0	1175.3	1185.3
27.5°	1004.9	1009.3	1030.5	1047.2	1059.4	1066.1	1089.5	1114.0	1124.1	1127.4	1137.4
30°	955.8	957.0	978.1	992.6	1004.9	1010.4	1030.5	1056.1	1063.9	1067.2	1081.7
32.5°	895.7	894.6	914.6	928.0	938.0	944.7	965.9	982.6	990.4	995.9	1003.7
35°	823.3	822.2	836.6	852.2	860.0	862.3	883.4	901.3	905.7	910.2	920.2
37.5°	741.9	741.9	754.2	762.0	770.9	774.3	784.3	804.3	812.1	811.0	818.8
40°	656.2	651.7	660.6	668.4	670.6	671.8	681.8	697.4	703.0	703.0	708.5
42.5°	565.9	559.2	560.4	564.8	567.0	559.2	565.9	576.0	572.6	577.1	578.2
45°	470.1	460.1	455.6	445.6	447.8	440.0	435.6	437.8	436.7	425.6	427.8
47.5°	392.1	374.3	366.5	352.0	348.7	339.8	334.2	324.2	315.3	315.3	309.7
50°	326.4	308.6	293.0	276.3	270.7	262.9	250.7	237.3	230.6	223.9	218.4
52.5°	274.1	255.1	236.2	218.4	210.6	200.5	183.8	170.4	158.2	151.5	144.8
55°	231.7	210.6	190.5	171.6	161.5	151.5	134.8	119.2	104.7	95.8	90.2
57.5°	199.4	179.4	158.2	138.1	129.2	118.1	100.3	83.6	70.2	60.2	54.6
60°	176.0	156.0	137.0	115.9	106.9	95.8	76.9	61.3	47.9	39.0	32.3
62.5°	156.0	138.1	118.1	99.1	90.2	79.1	61.3	45.7	33.4	24.5	18.9
65°	141.5	123.7	106.9	88.0	80.2	69.1	52.4	37.9	26.7	18.9	13.4
67.5°	124.8	109.2	92.5	76.9	69.1	60.2	44.6	32.3	22.3	15.6	11.1
70°	104.7	92.5	78.0	63.5	57.9	50.1	36.8	26.7	17.8	12.3	8.9
72.5°	83.6	73.5	62.4	51.2	46.8	39.0	30.1	21.2	13.4	8.9	6.7
75°	63.5	55.7	46.8	39.0	34.5	30.1	22.3	15.6	10.0	6.7	4.5
77.5°	43.4	40.1	33.4	26.7	24.5	21.2	14.5	10.0	6.7	4.5	2.2
80°	30.1	26.7	22.3	17.8	15.6	13.4	8.9	6.7	3.3	2.2	1.1
82.5°	18.9	15.6	13.4	11.1	10.0	7.8	5.6	3.3	2.2	1.1	1.1
85°	10.0	8.9	7.8	5.6	5.6	4.5	3.3	2.2	1.1	0.0	0.0
87.5°	5.6	4.5	3.3	2.2	2.2	1.1	1.1	1.1	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°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3
2.5°	1172.0	1172.0	1170.8	1184.2	1168.6	1184.2	1176.4	1184.2	1173.1	1172.0	1173.1
5°	1180.9	1184.2	1185.3	1197.6	1183.1	1202.0	1195.4	1202.0	1194.2	1196.5	1199.8
7.5°	1198.7	1204.3	1203.2	1218.8	1204.3	1225.4	1221.0	1231.0	1223.2	1225.4	1229.9
10°	1218.8	1225.4	1226.5	1242.1	1228.8	1254.4	1248.8	1260.0	1253.3	1256.6	1262.2
12.5°	1242.1	1249.9	1251.1	1268.9	1254.4	1281.1	1277.8	1288.9	1283.4	1286.7	1293.4
15°	1260.0	1271.1	1273.3	1291.2	1275.6	1303.4	1301.2	1315.7	1306.8	1312.3	1317.9
17.5°	1268.9	1278.9	1283.4	1300.1	1286.7	1314.6	1312.3	1324.6	1317.9	1323.5	1330.2
20°	1263.3	1275.6	1278.9	1295.6	1282.3	1310.1	1306.8	1319.0	1312.3	1316.8	1323.5
22.5°	1243.3	1255.5	1260.0	1275.6	1263.3	1288.9	1287.8	1299.0	1290.0	1295.6	1301.2
25°	1207.6	1221.0	1223.2	1237.7	1224.3	1251.1	1248.8	1261.1	1254.4	1257.7	1265.5
27.5°	1156.4	1172.0	1175.3	1187.6	1177.5	1199.8	1199.8	1209.8	1202.0	1202.0	1209.8
30°	1095.1	1110.7	1112.9	1122.9	1114.0	1134.1	1135.2	1145.2	1133.0	1139.7	1140.8
32.5°	1020.5	1030.5	1037.2	1046.1	1032.7	1058.3	1055.0	1062.8	1056.1	1056.1	1061.7
35°	930.2	942.5	945.8	957.0	945.8	965.9	965.9	970.3	963.6	963.6	972.6
37.5°	832.2	841.1	842.2	853.3	844.4	861.1	860.0	863.4	856.7	861.1	861.1
40°	717.4	724.1	726.3	731.9	730.8	743.1	741.9	744.2	740.8	741.9	744.2
42.5°	583.8	592.7	597.1	601.6	594.9	611.6	608.3	611.6	610.5	611.6	614.9
45°	430.0	436.7	440.0	441.2	438.9	449.0	456.8	450.1	451.2	449.0	453.4
47.5°	310.8	311.9	309.7	316.4	310.8	315.3	317.5	318.6	311.9	310.8	315.3
50°	212.8	218.4	210.6	213.9	212.8	217.2	215.0	216.1	209.4	212.8	210.6
52.5°	141.5	140.4	138.1	139.3	137.0	137.0	137.0	139.3	134.8	132.6	130.3
55°	85.8	83.6	79.1	78.0	78.0	79.1	76.9	74.6	74.6	73.5	73.5
57.5°	50.1	46.8	44.6	43.4	41.2	40.1	39.0	39.0	36.8	36.8	36.8
60°	27.9	24.5	22.3	20.1	20.1	18.9	17.8	16.7	16.7	16.7	15.6
62.5°	14.5	12.3	10.0	8.9	8.9	7.8	6.7	6.7	6.7	6.7	5.6
65°	10.0	7.8	6.7	5.6	5.6	4.5	4.5	4.5	4.5	4.5	4.5
67.5°	7.8	6.7	5.6	4.5	4.5	4.5	3.3	3.3	3.3	3.3	3.3
70°	6.7	4.5	4.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
72.5°	4.5	4.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
75°	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
80°	1.1	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: P252160

CATALOG NUMBER: LD6B20D010 EU6B10209027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3	1165.3
2.5°	1183.1	1182.0	1183.1	1185.3	1180.9	1194.2	1187.6	1194.2
5°	1208.7	1209.8	1211.0	1214.3	1208.7	1225.4	1216.5	1226.5
7.5°	1242.1	1243.3	1244.4	1247.7	1244.4	1261.1	1251.1	1260.0
10°	1276.7	1278.9	1278.9	1284.5	1281.1	1296.7	1290.0	1301.2
12.5°	1309.0	1311.2	1313.4	1316.8	1314.6	1331.3	1325.7	1334.6
15°	1334.6	1339.1	1340.2	1344.6	1342.4	1360.2	1353.5	1362.5
17.5°	1346.9	1351.3	1351.3	1356.9	1354.7	1373.6	1364.7	1374.7
20°	1340.2	1343.5	1344.6	1350.2	1348.0	1366.9	1358.0	1370.3
22.5°	1319.0	1320.1	1321.2	1326.8	1325.7	1342.4	1334.6	1342.4
25°	1280.0	1283.4	1282.3	1286.7	1286.7	1300.1	1291.2	1297.8
27.5°	1224.3	1227.7	1227.7	1233.2	1228.8	1242.1	1233.2	1243.3
30°	1156.4	1159.7	1157.5	1161.9	1157.5	1170.8	1164.2	1167.5
32.5°	1075.0	1075.0	1076.2	1077.3	1075.0	1087.3	1080.6	1087.3
35°	978.1	980.3	981.5	982.6	980.3	989.3	981.5	985.9
37.5°	868.9	874.5	873.4	874.5	871.2	882.3	875.6	877.9
40°	752.0	752.0	750.9	753.1	749.7	758.7	754.2	756.4
42.5°	616.1	619.4	614.9	620.5	611.6	623.9	619.4	616.1
45°	462.3	457.9	456.8	457.9	454.5	455.6	459.0	456.8
47.5°	315.3	315.3	313.0	309.7	314.2	315.3	310.8	310.8
50°	211.7	211.7	209.4	208.3	210.6	209.4	207.2	210.6
52.5°	134.8	130.3	130.3	132.6	130.3	128.1	131.5	129.2
55°	73.5	71.3	71.3	73.5	71.3	71.3	70.2	72.4
57.5°	35.6	36.8	35.6	35.6	35.6	35.6	34.5	35.6
60°	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
62.5°	6.7	6.7	5.6	5.6	5.6	5.6	5.6	5.6
65°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
67.5°	3.3	3.3	3.3	3.3	3.3	4.5	3.3	3.3
70°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
72.5°	3.3	3.3	4.5	4.5	4.5	4.5	4.5	4.5
75°	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1
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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)