

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: P252162

Luminaire Tested: **LD6B20D010 EU6B10209035 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252162
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 EU6B10209035 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2248.0 lumens
Efficiency: N/A
Efficacy: 108.1 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

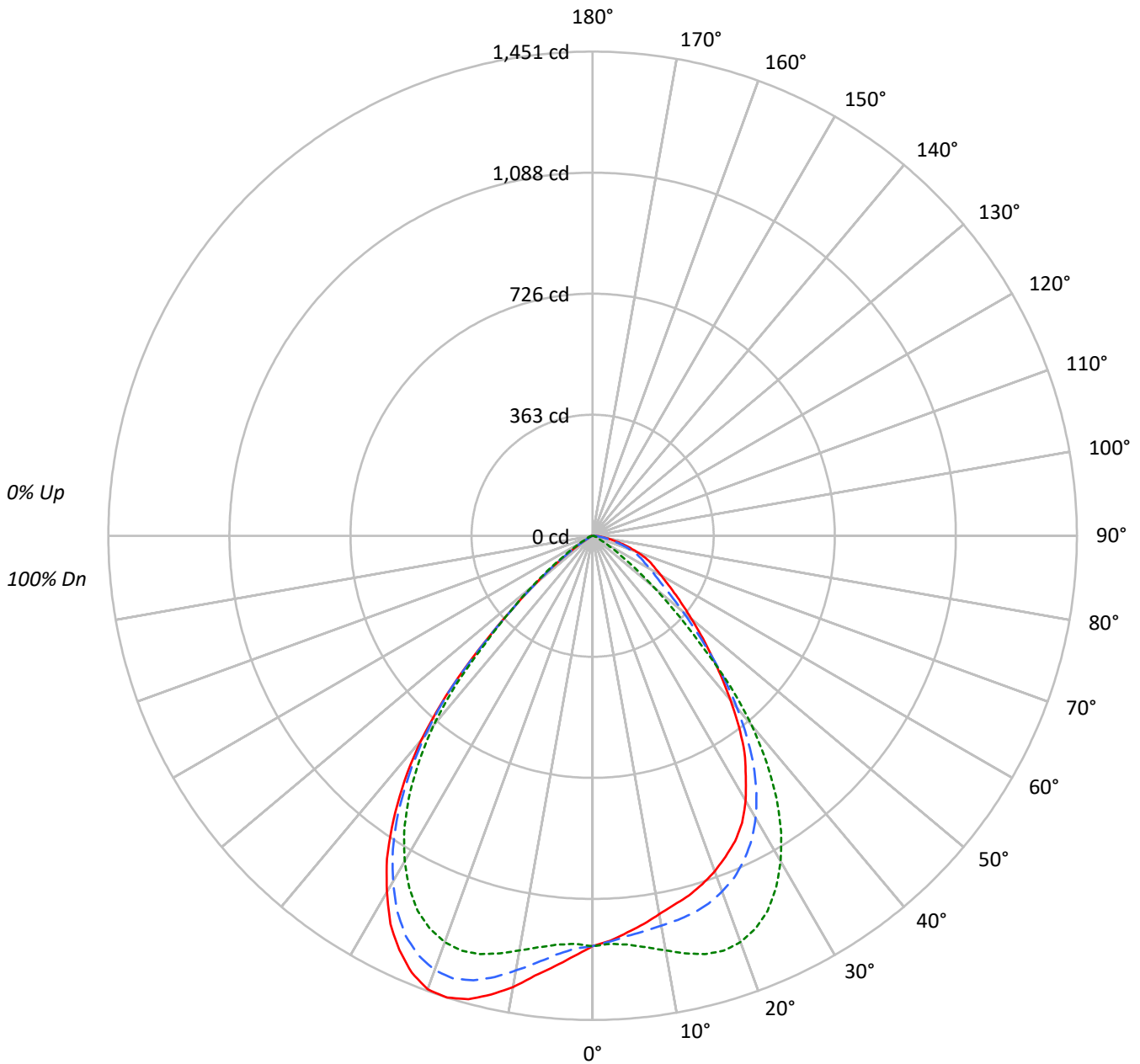
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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°	80233	80233	80233
5°	78156	80539	84777
10°	76257	83577	90977
15°	75363	87670	97119
20°	74281	89957	100406
25°	72705	89290	98598
30°	69088	84856	92826
35°	63206	76506	82870
40°	54676	63184	67988
45°	46104	41436	44481
50°	39137	23984	22552
55°	33964	11499	8690
60°	30676	5376	2153
65°	29763	3087	726
70°	26686	2461	668
75°	21930	1790	302
80°	16343	902	0
85°	14073	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	5.3
10°-20°	362.0	16.1
20°-30°	553.1	24.6
30°-40°	578.5	25.7
40°-50°	375.3	16.7
50°-60°	149.0	6.6
60°-70°	70.7	3.1
70°-80°	33.6	1.5
80°-90°	6.9	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°	1034.0	46.0
0°-40°	1612.5	71.7
0°-60°	2136.8	95.1
0°-90°	2248.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2248.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1230	1230	1230	1230	1230	
5°	1193	1204	1230	1260	1294	113
15°	1116	1170	1298	1379	1438	314
25°	1010	1074	1240	1324	1370	462
35°	794	842	961	1017	1040	491
45°	500	495	449	476	482	389
55°	299	254	101	79	76	271
65°	193	160	20	5	5	188
75°	87	70	7	2	1	94
85°	19	12	0	0	0	22
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°	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8
2.5°	1214.5	1216.9	1204.0	1200.4	1209.8	1213.4	1214.5	1211.0	1212.2	1216.9	1216.9
5°	1193.4	1195.7	1184.0	1180.5	1189.9	1192.2	1195.7	1194.6	1198.1	1205.1	1204.0
7.5°	1173.4	1176.9	1164.0	1159.3	1171.0	1176.9	1179.3	1179.3	1184.0	1193.4	1194.6
10°	1151.1	1155.8	1144.0	1141.7	1154.6	1160.5	1161.6	1164.0	1171.0	1184.0	1186.3
12.5°	1132.2	1136.9	1128.7	1125.2	1139.3	1145.2	1147.5	1152.2	1160.5	1176.9	1179.3
15°	1115.8	1119.3	1109.9	1107.6	1121.7	1128.7	1129.9	1136.9	1147.5	1166.3	1169.9
17.5°	1094.6	1097.0	1089.9	1087.6	1101.7	1108.7	1109.9	1118.1	1131.1	1149.9	1155.8
20°	1069.9	1072.3	1065.2	1062.9	1077.0	1085.2	1086.4	1093.4	1108.7	1128.7	1134.6
22.5°	1040.5	1045.2	1037.0	1034.7	1048.8	1055.8	1059.3	1065.2	1080.5	1100.5	1108.7
25°	1010.0	1010.0	1004.1	1002.9	1015.8	1024.1	1022.9	1031.1	1046.4	1066.4	1073.5
27.5°	970.0	968.8	962.9	961.8	975.9	982.9	980.6	988.8	1002.9	1022.9	1030.0
30°	917.1	919.4	911.2	908.9	920.6	932.4	931.2	939.4	953.5	972.3	977.0
32.5°	853.6	855.9	854.8	851.2	861.8	867.7	871.2	877.1	888.9	908.9	913.6
35°	793.6	790.1	785.4	785.4	796.0	805.4	801.9	808.9	820.7	840.7	841.8
37.5°	719.6	718.4	716.0	713.7	725.4	727.8	729.0	733.7	744.2	760.7	758.4
40°	642.0	643.1	642.0	637.3	644.3	653.7	652.5	654.9	664.3	676.1	672.5
42.5°	569.1	569.1	569.1	564.4	572.6	577.3	579.6	578.5	580.8	591.4	586.7
45°	499.7	500.9	499.7	498.5	499.7	502.0	499.7	498.5	498.5	502.0	495.0
47.5°	439.7	439.7	436.2	432.7	436.2	437.4	433.9	430.3	429.1	428.0	416.2
50°	385.6	384.5	383.3	377.4	380.9	382.1	377.4	375.1	370.4	364.5	350.4
52.5°	338.6	337.4	336.3	330.4	332.7	333.9	329.2	324.5	318.6	313.9	296.3
55°	298.6	297.5	297.5	293.9	291.6	293.9	289.2	285.7	277.5	271.6	254.0
57.5°	264.5	264.5	262.2	258.7	259.8	259.8	255.1	250.4	243.4	236.3	222.2
60°	235.1	235.1	235.1	231.6	231.6	231.6	229.3	224.6	218.7	211.6	197.5
62.5°	211.6	211.6	210.5	206.9	208.1	208.1	205.8	201.1	195.2	190.5	176.4
65°	192.8	192.8	192.8	189.3	189.3	190.5	188.1	183.4	178.7	172.8	159.9
67.5°	169.3	168.1	168.1	165.8	167.0	168.1	165.8	162.3	156.4	152.8	141.1
70°	139.9	141.1	142.3	138.7	139.9	139.9	138.7	135.2	131.7	128.2	117.6
72.5°	114.0	114.0	112.9	111.7	111.7	112.9	110.5	107.0	104.6	102.3	94.1
75°	87.0	85.8	87.0	84.7	84.7	84.7	82.3	81.1	80.0	76.4	70.5
77.5°	63.5	62.3	62.3	60.0	61.1	61.1	60.0	57.6	55.3	54.1	49.4
80°	43.5	43.5	43.5	42.3	42.3	41.2	41.2	40.0	37.6	36.4	34.1
82.5°	29.4	29.4	29.4	28.2	28.2	28.2	27.0	25.9	24.7	23.5	21.2
85°	18.8	18.8	18.8	17.6	17.6	17.6	16.5	16.5	15.3	14.1	11.8
87.5°	10.6	10.6	10.6	9.4	9.4	9.4	9.4	9.4	8.2	7.1	5.9
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°	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8
2.5°	1225.1	1208.7	1219.3	1219.3	1215.7	1225.1	1231.0	1235.7	1234.5	1224.0	1222.8
5°	1215.7	1201.6	1213.4	1214.5	1211.0	1224.0	1232.2	1238.1	1239.2	1229.8	1231.0
7.5°	1208.7	1196.9	1212.2	1216.9	1215.7	1227.5	1236.9	1246.3	1251.0	1243.9	1245.1
10°	1205.1	1195.7	1212.2	1219.3	1220.4	1233.4	1247.5	1260.4	1266.3	1261.6	1265.1
12.5°	1200.4	1194.6	1213.4	1224.0	1228.7	1241.6	1259.2	1274.5	1283.9	1281.6	1288.6
15°	1195.7	1191.0	1213.4	1228.7	1234.5	1246.3	1266.3	1288.6	1299.2	1298.0	1307.4
17.5°	1184.0	1182.8	1206.3	1222.8	1231.0	1245.1	1263.9	1291.0	1301.6	1303.9	1315.7
20°	1165.2	1165.2	1191.0	1208.7	1218.1	1231.0	1254.5	1280.4	1293.3	1295.7	1308.6
22.5°	1139.3	1141.7	1166.3	1184.0	1198.1	1207.5	1232.2	1259.2	1271.0	1274.5	1288.6
25°	1105.2	1107.6	1131.1	1148.7	1164.0	1174.6	1198.1	1222.8	1236.9	1240.4	1251.0
27.5°	1060.5	1065.2	1087.6	1105.2	1118.1	1125.2	1149.9	1175.7	1186.3	1189.9	1200.4
30°	1008.8	1010.0	1032.3	1047.6	1060.5	1066.4	1087.6	1114.6	1122.8	1126.4	1141.7
32.5°	945.3	944.1	965.3	979.4	990.0	997.0	1019.4	1037.0	1045.2	1051.1	1059.3
35°	868.9	867.7	883.0	899.4	907.7	910.0	932.4	951.2	955.9	960.6	971.2
37.5°	783.0	783.0	796.0	804.2	813.6	817.1	827.7	848.9	857.1	855.9	864.2
40°	692.5	687.8	697.2	705.4	707.8	709.0	719.6	736.0	741.9	741.9	747.8
42.5°	597.3	590.2	591.4	596.1	598.5	590.2	597.3	607.9	604.3	609.0	610.2
45°	496.2	485.6	480.9	470.3	472.7	464.4	459.7	462.1	460.9	449.1	451.5
47.5°	413.9	395.1	386.8	371.5	368.0	358.6	352.7	342.1	332.7	332.7	326.9
50°	344.5	325.7	309.2	291.6	285.7	277.5	264.5	250.4	243.4	236.3	230.4
52.5°	289.2	269.2	249.3	230.4	222.2	211.6	194.0	179.9	167.0	159.9	152.8
55°	244.6	222.2	201.1	181.1	170.5	159.9	142.3	125.8	110.5	101.1	95.2
57.5°	210.5	189.3	167.0	145.8	136.4	124.6	105.8	88.2	74.1	63.5	57.6
60°	185.8	164.6	144.6	122.3	112.9	101.1	81.1	64.7	50.6	41.2	34.1
62.5°	164.6	145.8	124.6	104.6	95.2	83.5	64.7	48.2	35.3	25.9	20.0
65°	149.3	130.5	112.9	92.9	84.7	72.9	55.3	40.0	28.2	20.0	14.1
67.5°	131.7	115.2	97.6	81.1	72.9	63.5	47.0	34.1	23.5	16.5	11.8
70°	110.5	97.6	82.3	67.0	61.1	52.9	38.8	28.2	18.8	12.9	9.4
72.5°	88.2	77.6	65.8	54.1	49.4	41.2	31.7	22.3	14.1	9.4	7.1
75°	67.0	58.8	49.4	41.2	36.4	31.7	23.5	16.5	10.6	7.1	4.7
77.5°	45.9	42.3	35.3	28.2	25.9	22.3	15.3	10.6	7.1	4.7	2.4
80°	31.7	28.2	23.5	18.8	16.5	14.1	9.4	7.1	3.5	2.4	1.2
82.5°	20.0	16.5	14.1	11.8	10.6	8.2	5.9	3.5	2.4	1.2	1.2
85°	10.6	9.4	8.2	5.9	5.9	4.7	3.5	2.4	1.2	0.0	0.0
87.5°	5.9	4.7	3.5	2.4	2.4	1.2	1.2	1.2	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°	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8
2.5°	1236.9	1236.9	1235.7	1249.8	1233.4	1249.8	1241.6	1249.8	1238.1	1236.9	1238.1
5°	1246.3	1249.8	1251.0	1263.9	1248.6	1268.6	1261.6	1268.6	1260.4	1262.8	1266.3
7.5°	1265.1	1271.0	1269.8	1286.3	1271.0	1293.3	1288.6	1299.2	1291.0	1293.3	1298.0
10°	1286.3	1293.3	1294.5	1311.0	1296.9	1323.9	1318.0	1329.8	1322.7	1326.2	1332.1
12.5°	1311.0	1319.2	1320.4	1339.2	1323.9	1352.1	1348.6	1360.3	1354.5	1358.0	1365.0
15°	1329.8	1341.5	1343.9	1362.7	1346.2	1375.6	1373.3	1388.6	1379.2	1385.0	1390.9
17.5°	1339.2	1349.8	1354.5	1372.1	1358.0	1387.4	1385.0	1398.0	1390.9	1396.8	1403.8
20°	1333.3	1346.2	1349.8	1367.4	1353.3	1382.7	1379.2	1392.1	1385.0	1389.7	1396.8
22.5°	1312.1	1325.1	1329.8	1346.2	1333.3	1360.3	1359.2	1370.9	1361.5	1367.4	1373.3
25°	1274.5	1288.6	1291.0	1306.3	1292.1	1320.4	1318.0	1330.9	1323.9	1327.4	1335.7
27.5°	1220.4	1236.9	1240.4	1253.3	1242.8	1266.3	1266.3	1276.9	1268.6	1268.6	1276.9
30°	1155.8	1172.2	1174.6	1185.2	1175.7	1196.9	1198.1	1208.7	1195.7	1202.8	1204.0
32.5°	1077.0	1087.6	1094.6	1104.0	1089.9	1117.0	1113.4	1121.7	1114.6	1114.6	1120.5
35°	981.8	994.7	998.2	1010.0	998.2	1019.4	1019.4	1024.1	1017.0	1017.0	1026.4
37.5°	878.3	887.7	888.9	900.6	891.2	908.9	907.7	911.2	904.2	908.9	908.9
40°	757.2	764.2	766.6	772.5	771.3	784.2	783.0	785.4	781.9	783.0	785.4
42.5°	616.1	625.5	630.2	634.9	627.8	645.5	642.0	645.5	644.3	645.5	649.0
45°	453.8	460.9	464.4	465.6	463.2	473.8	482.1	475.0	476.2	473.8	478.5
47.5°	328.0	329.2	326.9	333.9	328.0	332.7	335.1	336.3	329.2	328.0	332.7
50°	224.6	230.4	222.2	225.7	224.6	229.3	226.9	228.1	221.0	224.6	222.2
52.5°	149.3	148.1	145.8	147.0	144.6	144.6	144.6	147.0	142.3	139.9	137.6
55°	90.5	88.2	83.5	82.3	82.3	83.5	81.1	78.8	78.8	77.6	77.6
57.5°	52.9	49.4	47.0	45.9	43.5	42.3	41.2	41.2	38.8	38.8	38.8
60°	29.4	25.9	23.5	21.2	21.2	20.0	18.8	17.6	17.6	17.6	16.5
62.5°	15.3	12.9	10.6	9.4	9.4	8.2	7.1	7.1	7.1	7.1	5.9
65°	10.6	8.2	7.1	5.9	5.9	4.7	4.7	4.7	4.7	4.7	4.7
67.5°	8.2	7.1	5.9	4.7	4.7	4.7	3.5	3.5	3.5	3.5	3.5
70°	7.1	4.7	4.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
72.5°	4.7	4.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
75°	3.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
80°	1.2	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: P252162

CATALOG NUMBER: LD6B20D010 EU6B10209035 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8	1229.8
2.5°	1248.6	1247.5	1248.6	1251.0	1246.3	1260.4	1253.3	1260.4
5°	1275.7	1276.9	1278.0	1281.6	1275.7	1293.3	1283.9	1294.5
7.5°	1311.0	1312.1	1313.3	1316.8	1313.3	1330.9	1320.4	1329.8
10°	1347.4	1349.8	1349.8	1355.6	1352.1	1368.6	1361.5	1373.3
12.5°	1381.5	1383.9	1386.2	1389.7	1387.4	1405.0	1399.1	1408.5
15°	1408.5	1413.3	1414.4	1419.1	1416.8	1435.6	1428.5	1437.9
17.5°	1421.5	1426.2	1426.2	1432.1	1429.7	1449.7	1440.3	1450.9
20°	1414.4	1418.0	1419.1	1425.0	1422.7	1442.6	1433.2	1446.2
22.5°	1392.1	1393.3	1394.4	1400.3	1399.1	1416.8	1408.5	1416.8
25°	1350.9	1354.5	1353.3	1358.0	1358.0	1372.1	1362.7	1369.7
27.5°	1292.1	1295.7	1295.7	1301.6	1296.9	1311.0	1301.6	1312.1
30°	1220.4	1224.0	1221.6	1226.3	1221.6	1235.7	1228.7	1232.2
32.5°	1134.6	1134.6	1135.8	1136.9	1134.6	1147.5	1140.5	1147.5
35°	1032.3	1034.7	1035.8	1037.0	1034.7	1044.1	1035.8	1040.5
37.5°	917.1	923.0	921.8	923.0	919.4	931.2	924.1	926.5
40°	793.6	793.6	792.5	794.8	791.3	800.7	796.0	798.3
42.5°	650.2	653.7	649.0	654.9	645.5	658.4	653.7	650.2
45°	487.9	483.2	482.1	483.2	479.7	480.9	484.4	482.1
47.5°	332.7	332.7	330.4	326.9	331.6	332.7	328.0	328.0
50°	223.4	223.4	221.0	219.9	222.2	221.0	218.7	222.2
52.5°	142.3	137.6	137.6	139.9	137.6	135.2	138.7	136.4
55°	77.6	75.2	75.2	77.6	75.2	75.2	74.1	76.4
57.5°	37.6	38.8	37.6	37.6	37.6	37.6	36.4	37.6
60°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
62.5°	7.1	7.1	5.9	5.9	5.9	5.9	5.9	5.9
65°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
67.5°	3.5	3.5	3.5	3.5	3.5	4.7	3.5	3.5
70°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
72.5°	3.5	3.5	4.7	4.7	4.7	4.7	4.7	4.7
75°	2.4	2.4	2.4	1.2	1.2	1.2	1.2	1.2
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)