

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: P252164

Luminaire Tested: **LD6B20D010 EU6B10209050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252164
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 EU6B10209050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2261.0 lumens
Efficiency: N/A
Efficacy: 108.7 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

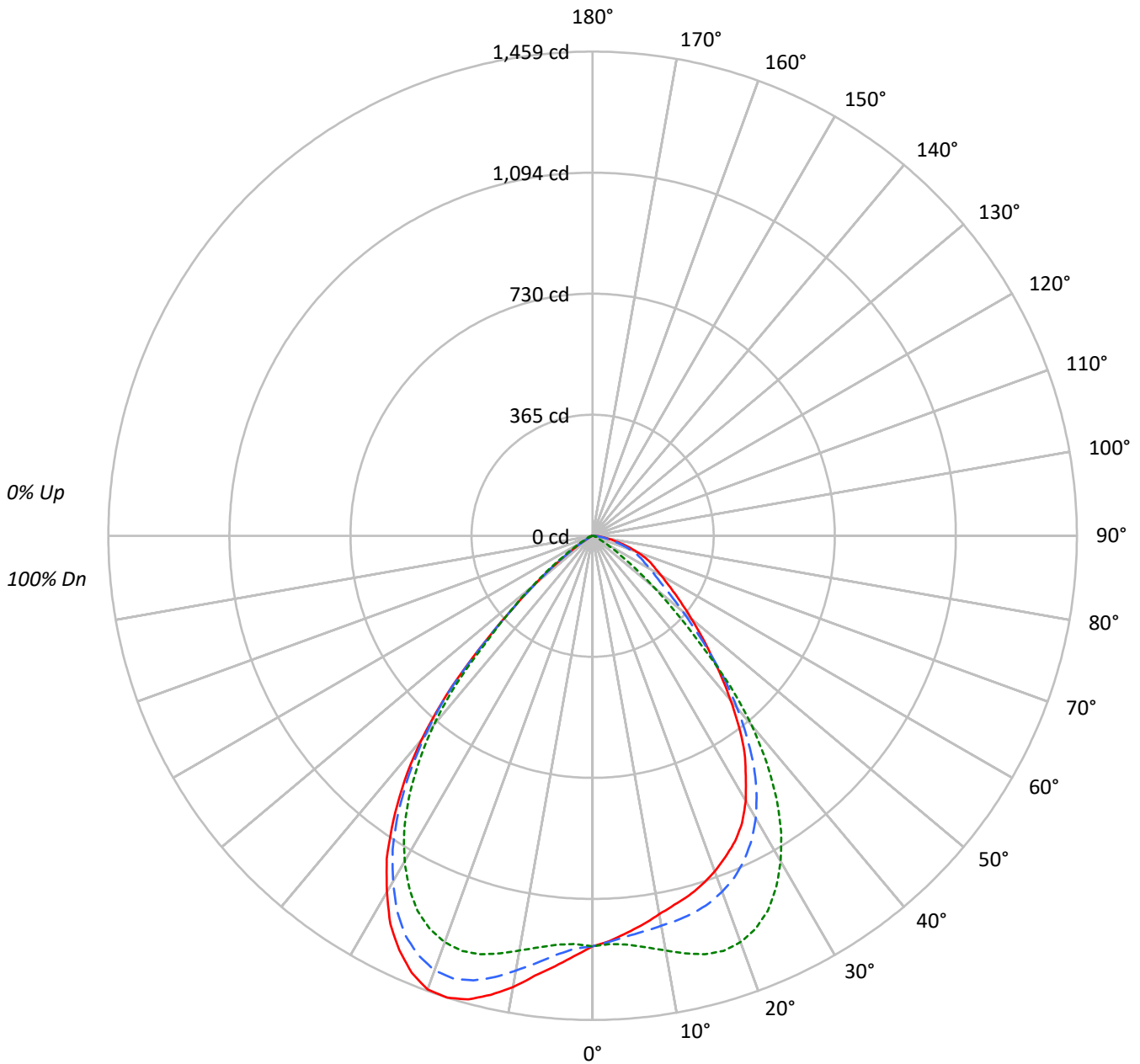
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	80696	80696	80696
5°	78607	81004	85268
10°	76694	84061	91500
15°	75796	88176	97686
20°	74711	90478	100982
25°	73122	89809	99174
30°	69488	85345	93361
35°	63572	76944	83356
40°	54991	63551	68388
45°	46372	41676	44730
50°	39370	24126	22684
55°	34169	11568	8747
60°	30859	5402	2166
65°	29933	3103	726
70°	26839	2480	668
75°	22056	1790	302
80°	16456	902	0
85°	14148	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.5	5.3
10°-20°	364.1	16.1
20°-30°	556.3	24.6
30°-40°	581.9	25.7
40°-50°	377.5	16.7
50°-60°	149.9	6.6
60°-70°	71.1	3.1
70°-80°	33.8	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°	1039.9	46.0
0°-40°	1621.8	71.7
0°-60°	2149.2	95.1
0°-90°	2261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2261.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1237	1237	1237	1237	1237	
5°	1200	1211	1237	1268	1302	113
15°	1122	1177	1306	1387	1446	316
25°	1016	1080	1248	1332	1378	465
35°	798	847	966	1023	1047	494
45°	503	498	452	479	485	391
55°	300	255	102	79	77	272
65°	194	161	20	5	5	189
75°	88	71	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°	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9
2.5°	1221.6	1223.9	1210.9	1207.4	1216.8	1220.4	1221.6	1218.0	1219.2	1223.9	1223.9
5°	1200.3	1202.7	1190.8	1187.3	1196.7	1199.1	1202.7	1201.5	1205.0	1212.1	1210.9
7.5°	1180.2	1183.7	1170.7	1166.0	1177.8	1183.7	1186.1	1186.1	1190.8	1200.3	1201.5
10°	1157.7	1162.4	1150.6	1148.3	1161.3	1167.2	1168.4	1170.7	1177.8	1190.8	1193.2
12.5°	1138.8	1143.5	1135.2	1131.7	1145.9	1151.8	1154.2	1158.9	1167.2	1183.7	1186.1
15°	1122.2	1125.8	1116.3	1114.0	1128.2	1135.2	1136.4	1143.5	1154.2	1173.1	1176.6
17.5°	1101.0	1103.3	1096.2	1093.9	1108.0	1115.1	1116.3	1124.6	1137.6	1156.5	1162.4
20°	1076.1	1078.5	1071.4	1069.0	1083.2	1091.5	1092.7	1099.8	1115.1	1135.2	1141.2
22.5°	1046.6	1051.3	1043.0	1040.6	1054.8	1061.9	1065.5	1071.4	1086.8	1106.9	1115.1
25°	1015.8	1015.8	1009.9	1008.7	1021.7	1030.0	1028.8	1037.1	1052.5	1072.6	1079.7
27.5°	975.6	974.4	968.5	967.3	981.5	988.6	986.2	994.5	1008.7	1028.8	1035.9
30°	922.4	924.8	916.5	914.1	925.9	937.8	936.6	944.9	959.0	978.0	982.7
32.5°	858.5	860.9	859.7	856.2	866.8	872.7	876.3	882.2	894.0	914.1	918.8
35°	798.2	794.7	789.9	789.9	800.6	810.0	806.5	813.6	825.4	845.5	846.7
37.5°	723.7	722.5	720.2	717.8	729.6	732.0	733.2	737.9	748.6	765.1	762.7
40°	645.7	646.9	645.7	640.9	648.0	657.5	656.3	658.7	668.1	680.0	676.4
42.5°	572.4	572.4	572.4	567.6	575.9	580.6	583.0	581.8	584.2	594.8	590.1
45°	502.6	503.8	502.6	501.4	502.6	504.9	502.6	501.4	501.4	504.9	497.9
47.5°	442.3	442.3	438.7	435.2	438.7	439.9	436.4	432.8	431.6	430.4	418.6
50°	387.9	386.7	385.5	379.6	383.1	384.3	379.6	377.2	372.5	366.6	352.4
52.5°	340.6	339.4	338.2	332.3	334.7	335.8	331.1	326.4	320.5	315.7	298.0
55°	300.4	299.2	299.2	295.6	293.3	295.6	290.9	287.4	279.1	273.2	255.4
57.5°	266.1	266.1	263.7	260.2	261.3	261.3	256.6	251.9	244.8	237.7	223.5
60°	236.5	236.5	236.5	233.0	233.0	233.0	230.6	225.9	220.0	212.9	198.7
62.5°	212.9	212.9	211.7	208.1	209.3	209.3	206.9	202.2	196.3	191.6	177.4
65°	193.9	193.9	193.9	190.4	190.4	191.6	189.2	184.5	179.7	173.8	160.8
67.5°	170.3	169.1	169.1	166.7	167.9	169.1	166.7	163.2	157.3	153.7	141.9
70°	140.7	141.9	143.1	139.5	140.7	140.7	139.5	136.0	132.4	128.9	118.3
72.5°	114.7	114.7	113.5	112.3	112.3	113.5	111.2	107.6	105.2	102.9	94.6
75°	87.5	86.3	87.5	85.1	85.1	85.1	82.8	81.6	80.4	76.9	71.0
77.5°	63.9	62.7	62.7	60.3	61.5	61.5	60.3	57.9	55.6	54.4	49.7
80°	43.8	43.8	43.8	42.6	42.6	41.4	41.4	40.2	37.8	36.7	34.3
82.5°	29.6	29.6	29.6	28.4	28.4	28.4	27.2	26.0	24.8	23.7	21.3
85°	18.9	18.9	18.9	17.7	17.7	17.7	16.6	16.6	15.4	14.2	11.8
87.5°	10.6	10.6	10.6	9.5	9.5	9.5	9.5	9.5	8.3	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°	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9
2.5°	1232.2	1215.7	1226.3	1226.3	1222.8	1232.2	1238.1	1242.9	1241.7	1231.0	1229.9
5°	1222.8	1208.6	1220.4	1221.6	1218.0	1231.0	1239.3	1245.2	1246.4	1236.9	1238.1
7.5°	1215.7	1203.8	1219.2	1223.9	1222.8	1234.6	1244.0	1253.5	1258.2	1251.1	1252.3
10°	1212.1	1202.7	1219.2	1226.3	1227.5	1240.5	1254.7	1267.7	1273.6	1268.9	1272.4
12.5°	1207.4	1201.5	1220.4	1231.0	1235.8	1248.8	1266.5	1281.9	1291.3	1289.0	1296.1
15°	1202.7	1197.9	1220.4	1235.8	1241.7	1253.5	1273.6	1296.1	1306.7	1305.5	1315.0
17.5°	1190.8	1189.6	1213.3	1229.9	1238.1	1252.3	1271.2	1298.4	1309.1	1311.4	1323.3
20°	1171.9	1171.9	1197.9	1215.7	1225.1	1238.1	1261.8	1287.8	1300.8	1303.2	1316.2
22.5°	1145.9	1148.3	1173.1	1190.8	1205.0	1214.5	1239.3	1266.5	1278.3	1281.9	1296.1
25°	1111.6	1114.0	1137.6	1155.3	1170.7	1181.4	1205.0	1229.9	1244.0	1247.6	1258.2
27.5°	1066.7	1071.4	1093.9	1111.6	1124.6	1131.7	1156.5	1182.5	1193.2	1196.7	1207.4
30°	1014.6	1015.8	1038.3	1053.7	1066.7	1072.6	1093.9	1121.1	1129.3	1132.9	1148.3
32.5°	950.8	949.6	970.9	985.1	995.7	1002.8	1025.3	1043.0	1051.3	1057.2	1065.5
35°	873.9	872.7	888.1	904.6	912.9	915.3	937.8	956.7	961.4	966.1	976.8
37.5°	787.6	787.6	800.6	808.9	818.3	821.9	832.5	853.8	862.1	860.9	869.2
40°	696.5	691.8	701.3	709.5	711.9	713.1	723.7	740.3	746.2	746.2	752.1
42.5°	600.7	593.6	594.8	599.6	601.9	593.6	600.7	611.4	607.8	612.6	613.7
45°	499.0	488.4	483.7	473.0	475.4	467.1	462.4	464.7	463.6	451.7	454.1
47.5°	416.3	397.3	389.1	373.7	370.1	360.7	354.8	344.1	334.7	334.7	328.7
50°	346.5	327.6	311.0	293.3	287.4	279.1	266.1	251.9	244.8	237.7	231.8
52.5°	290.9	270.8	250.7	231.8	223.5	212.9	195.1	180.9	167.9	160.8	153.7
55°	246.0	223.5	202.2	182.1	171.5	160.8	143.1	126.5	111.2	101.7	95.8
57.5°	211.7	190.4	167.9	146.6	137.2	125.4	106.4	88.7	74.5	63.9	57.9
60°	186.8	165.6	145.5	123.0	113.5	101.7	81.6	65.0	50.8	41.4	34.3
62.5°	165.6	146.6	125.4	105.2	95.8	84.0	65.0	48.5	35.5	26.0	20.1
65°	150.2	131.3	113.5	93.4	85.1	73.3	55.6	40.2	28.4	20.1	14.2
67.5°	132.4	115.9	98.2	81.6	73.3	63.9	47.3	34.3	23.7	16.6	11.8
70°	111.2	98.2	82.8	67.4	61.5	53.2	39.0	28.4	18.9	13.0	9.5
72.5°	88.7	78.0	66.2	54.4	49.7	41.4	31.9	22.5	14.2	9.5	7.1
75°	67.4	59.1	49.7	41.4	36.7	31.9	23.7	16.6	10.6	7.1	4.7
77.5°	46.1	42.6	35.5	28.4	26.0	22.5	15.4	10.6	7.1	4.7	2.4
80°	31.9	28.4	23.7	18.9	16.6	14.2	9.5	7.1	3.5	2.4	1.2
82.5°	20.1	16.6	14.2	11.8	10.6	8.3	5.9	3.5	2.4	1.2	1.2
85°	10.6	9.5	8.3	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°	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9
2.5°	1244.0	1244.0	1242.9	1257.0	1240.5	1257.0	1248.8	1257.0	1245.2	1244.0	1245.2
5°	1253.5	1257.0	1258.2	1271.2	1255.9	1276.0	1268.9	1276.0	1267.7	1270.1	1273.6
7.5°	1272.4	1278.3	1277.2	1293.7	1278.3	1300.8	1296.1	1306.7	1298.4	1300.8	1305.5
10°	1293.7	1300.8	1302.0	1318.5	1304.4	1331.5	1325.6	1337.5	1330.4	1333.9	1339.8
12.5°	1318.5	1326.8	1328.0	1346.9	1331.5	1359.9	1356.4	1368.2	1362.3	1365.8	1372.9
15°	1337.5	1349.3	1351.7	1370.6	1354.0	1383.6	1381.2	1396.6	1387.1	1393.0	1399.0
17.5°	1346.9	1357.6	1362.3	1380.0	1365.8	1395.4	1393.0	1406.0	1399.0	1404.9	1412.0
20°	1341.0	1354.0	1357.6	1375.3	1361.1	1390.7	1387.1	1400.1	1393.0	1397.8	1404.9
22.5°	1319.7	1332.7	1337.5	1354.0	1341.0	1368.2	1367.0	1378.9	1369.4	1375.3	1381.2
25°	1281.9	1296.1	1298.4	1313.8	1299.6	1328.0	1325.6	1338.6	1331.5	1335.1	1343.4
27.5°	1227.5	1244.0	1247.6	1260.6	1250.0	1273.6	1273.6	1284.2	1276.0	1276.0	1284.2
30°	1162.4	1179.0	1181.4	1192.0	1182.5	1203.8	1205.0	1215.7	1202.7	1209.7	1210.9
32.5°	1083.2	1093.9	1101.0	1110.4	1096.2	1123.4	1119.9	1128.2	1121.1	1121.1	1127.0
35°	987.4	1000.4	1004.0	1015.8	1004.0	1025.3	1025.3	1030.0	1022.9	1022.9	1032.4
37.5°	883.4	892.8	894.0	905.8	896.4	914.1	912.9	916.5	909.4	914.1	914.1
40°	761.6	768.7	771.0	776.9	775.8	788.8	787.6	789.9	786.4	787.6	789.9
42.5°	619.7	629.1	633.8	638.6	631.5	649.2	645.7	649.2	648.0	649.2	652.8
45°	456.5	463.6	467.1	468.3	465.9	476.6	484.8	477.7	478.9	476.6	481.3
47.5°	329.9	331.1	328.7	335.8	329.9	334.7	337.0	338.2	331.1	329.9	334.7
50°	225.9	231.8	223.5	227.0	225.9	230.6	228.2	229.4	222.3	225.9	223.5
52.5°	150.2	149.0	146.6	147.8	145.5	145.5	145.5	147.8	143.1	140.7	138.4
55°	91.1	88.7	84.0	82.8	82.8	84.0	81.6	79.2	79.2	78.0	78.0
57.5°	53.2	49.7	47.3	46.1	43.8	42.6	41.4	41.4	39.0	39.0	39.0
60°	29.6	26.0	23.7	21.3	21.3	20.1	18.9	17.7	17.7	17.7	16.6
62.5°	15.4	13.0	10.6	9.5	9.5	8.3	7.1	7.1	7.1	7.1	5.9
65°	10.6	8.3	7.1	5.9	5.9	4.7	4.7	4.7	4.7	4.7	4.7
67.5°	8.3	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: P252164

CATALOG NUMBER: LD6B20D010 EU6B10209050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9	1236.9
2.5°	1255.9	1254.7	1255.9	1258.2	1253.5	1267.7	1260.6	1267.7
5°	1283.1	1284.2	1285.4	1289.0	1283.1	1300.8	1291.3	1302.0
7.5°	1318.5	1319.7	1320.9	1324.5	1320.9	1338.6	1328.0	1337.5
10°	1355.2	1357.6	1357.6	1363.5	1359.9	1376.5	1369.4	1381.2
12.5°	1389.5	1391.9	1394.2	1397.8	1395.4	1413.1	1407.2	1416.7
15°	1416.7	1421.4	1422.6	1427.3	1425.0	1443.9	1436.8	1446.3
17.5°	1429.7	1434.4	1434.4	1440.3	1438.0	1458.1	1448.6	1459.3
20°	1422.6	1426.2	1427.3	1433.2	1430.9	1451.0	1441.5	1454.5
22.5°	1400.1	1401.3	1402.5	1408.4	1407.2	1425.0	1416.7	1425.0
25°	1358.7	1362.3	1361.1	1365.8	1365.8	1380.0	1370.6	1377.7
27.5°	1299.6	1303.2	1303.2	1309.1	1304.4	1318.5	1309.1	1319.7
30°	1227.5	1231.0	1228.7	1233.4	1228.7	1242.9	1235.8	1239.3
32.5°	1141.2	1141.2	1142.3	1143.5	1141.2	1154.2	1147.1	1154.2
35°	1038.3	1040.6	1041.8	1043.0	1040.6	1050.1	1041.8	1046.6
37.5°	922.4	928.3	927.1	928.3	924.8	936.6	929.5	931.8
40°	798.2	798.2	797.0	799.4	795.9	805.3	800.6	803.0
42.5°	653.9	657.5	652.8	658.7	649.2	662.2	657.5	653.9
45°	490.8	486.0	484.8	486.0	482.5	483.7	487.2	484.8
47.5°	334.7	334.7	332.3	328.7	333.5	334.7	329.9	329.9
50°	224.7	224.7	222.3	221.1	223.5	222.3	220.0	223.5
52.5°	143.1	138.4	138.4	140.7	138.4	136.0	139.5	137.2
55°	78.0	75.7	75.7	78.0	75.7	75.7	74.5	76.9
57.5°	37.8	39.0	37.8	37.8	37.8	37.8	36.7	37.8
60°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
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)