

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: PORTFOLIO

Report Number: P252144

Luminaire Tested: **LE_6B15D010 EC6B10208040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252144
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: PORTFOLIO
Catalog Number: LE_6B15D010 EC6B10208040 6LBSW1LI
Description: PORTFOLIO 6 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: 2416.3 lumens
Efficiency: N/A
Efficacy: 167.8 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

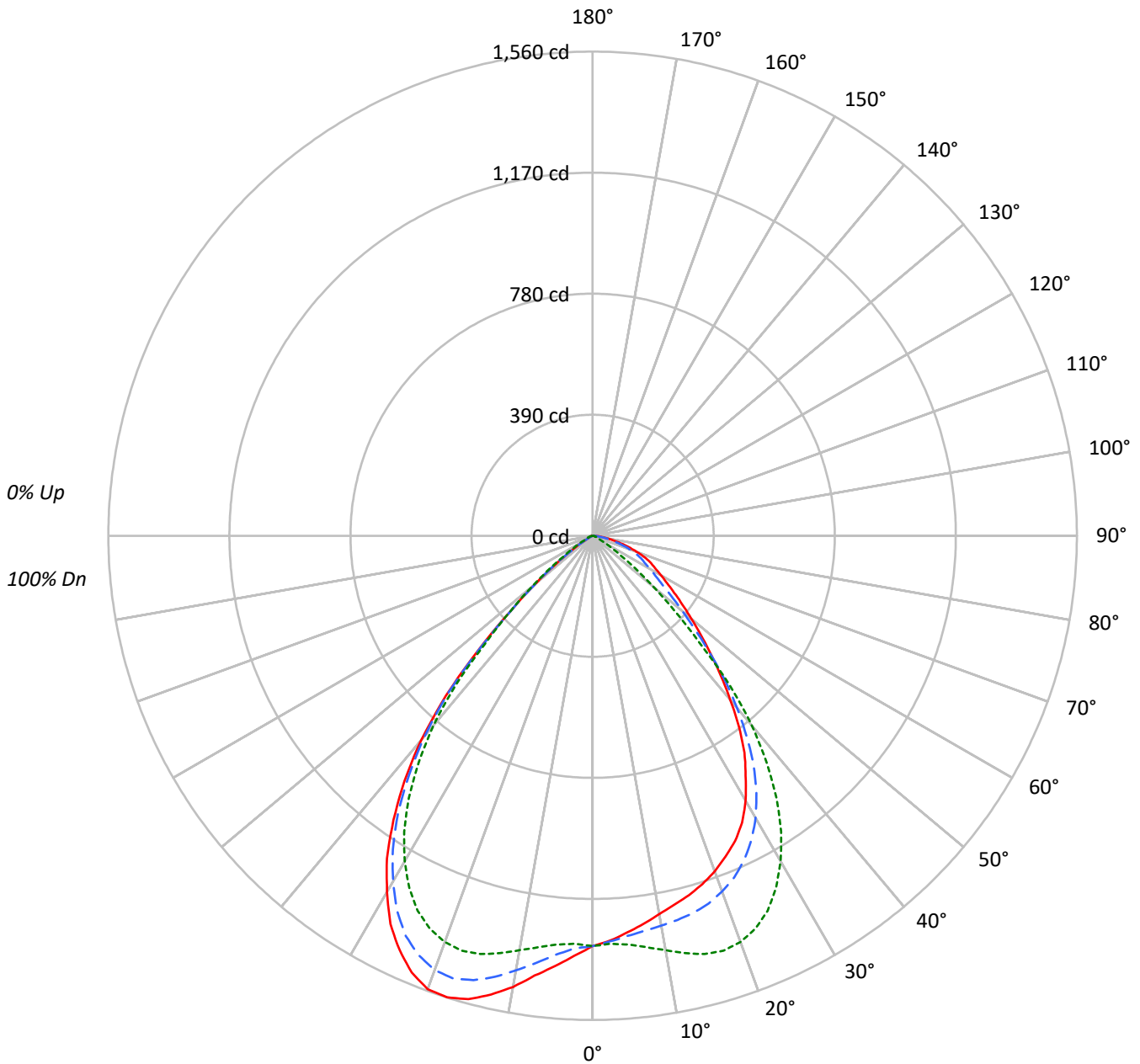
Input Watts (W): 14.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	86242	86242	86242
5°	84010	86571	91123
10°	81961	89831	97781
15°	80996	94228	104393
20°	79842	96685	107918
25°	78140	95970	105976
30°	74264	91199	99772
35°	67936	82233	89074
40°	58764	67911	73081
45°	49555	44545	47802
50°	42070	25780	24247
55°	36512	12353	9338
60°	32986	5767	2323
65°	31986	3319	772
70°	28689	2651	725
75°	23569	1916	302
80°	17583	939	0
85°	15121	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	5.3
10°-20°	389.1	16.1
20°-30°	594.5	24.6
30°-40°	621.8	25.7
40°-50°	403.4	16.7
50°-60°	160.2	6.6
60°-70°	76.0	3.1
70°-80°	36.1	1.5
80°-90°	7.4	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°	1111.4	46.0
0°-40°	1733.2	71.7
0°-60°	2296.8	95.1
0°-90°	2416.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2416.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1322	1322	1322	1322	1322	
5°	1283	1294	1322	1355	1391	121
15°	1199	1257	1395	1482	1546	338
25°	1086	1154	1333	1423	1472	497
35°	853	905	1032	1093	1118	528
45°	537	532	483	512	518	418
55°	321	273	109	85	82	291
65°	207	172	22	5	5	202
75°	94	76	8	2	1	101
85°	20	13	0	0	0	24
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°	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9
2.5°	1305.5	1308.0	1294.1	1290.2	1300.4	1304.1	1305.5	1301.6	1302.9	1308.0	1308.0
5°	1282.8	1285.2	1272.6	1268.8	1278.9	1281.5	1285.2	1284.0	1287.8	1295.4	1294.1
7.5°	1261.2	1265.0	1251.1	1246.0	1258.8	1265.0	1267.5	1267.5	1272.6	1282.8	1284.0
10°	1237.2	1242.2	1229.6	1227.1	1241.0	1247.4	1248.6	1251.1	1258.8	1272.6	1275.1
12.5°	1217.0	1222.0	1213.2	1209.4	1224.6	1230.9	1233.4	1238.5	1247.4	1265.0	1267.5
15°	1199.2	1203.1	1193.0	1190.5	1205.6	1213.2	1214.5	1222.0	1233.4	1253.6	1257.4
17.5°	1176.5	1179.1	1171.5	1169.0	1184.1	1191.8	1193.0	1201.9	1215.8	1236.0	1242.2
20°	1150.0	1152.5	1145.0	1142.4	1157.6	1166.5	1167.8	1175.2	1191.8	1213.2	1219.5
22.5°	1118.4	1123.5	1114.6	1112.1	1127.2	1134.9	1138.6	1145.0	1161.4	1182.9	1191.8
25°	1085.5	1085.5	1079.2	1078.0	1091.9	1100.8	1099.5	1108.2	1124.8	1146.2	1153.8
27.5°	1042.6	1041.4	1035.0	1033.8	1048.9	1056.5	1054.0	1062.8	1078.0	1099.5	1107.0
30°	985.8	988.2	979.4	976.9	989.5	1002.1	1000.9	1009.8	1024.9	1045.1	1050.1
32.5°	917.5	920.0	918.8	915.0	926.4	932.6	936.4	942.8	955.4	976.9	981.9
35°	853.0	849.2	844.1	844.1	855.5	865.6	861.9	869.5	882.1	903.6	904.9
37.5°	773.4	772.1	769.6	767.1	779.8	782.2	783.5	788.6	800.0	817.6	815.1
40°	690.0	691.2	690.0	685.0	692.5	702.6	701.4	703.9	714.0	726.6	722.9
42.5°	611.6	611.6	611.6	606.6	615.5	620.5	623.0	621.8	624.2	635.6	630.6
45°	537.1	538.4	537.1	535.9	537.1	539.6	537.1	535.9	535.9	539.6	532.0
47.5°	472.6	472.6	468.9	465.0	468.9	470.1	466.4	462.5	461.2	460.0	447.4
50°	414.5	413.2	412.0	405.6	409.5	410.8	405.6	403.1	398.1	391.8	376.6
52.5°	364.0	362.8	361.4	355.1	357.6	358.9	353.9	348.8	342.5	337.4	318.5
55°	321.0	319.8	319.8	315.9	313.4	315.9	310.9	307.1	298.2	291.9	273.0
57.5°	284.4	284.4	281.9	278.0	279.2	279.2	274.2	269.1	261.6	254.0	238.9
60°	252.8	252.8	252.8	249.0	249.0	249.0	246.4	241.4	235.0	227.5	212.2
62.5°	227.5	227.5	226.2	222.4	223.6	223.6	221.1	216.1	209.8	204.8	189.5
65°	207.2	207.2	207.2	203.5	203.5	204.8	202.2	197.1	192.1	185.8	171.9
67.5°	182.0	180.8	180.8	178.2	179.5	180.8	178.2	174.4	168.1	164.2	151.6
70°	150.4	151.6	152.9	149.1	150.4	150.4	149.1	145.4	141.5	137.8	126.4
72.5°	122.6	122.6	121.4	120.0	120.0	121.4	118.8	115.0	112.5	110.0	101.1
75°	93.5	92.2	93.5	91.0	91.0	91.0	88.5	87.2	85.9	82.1	75.9
77.5°	68.2	67.0	67.0	64.5	65.8	65.8	64.5	61.9	59.4	58.1	53.1
80°	46.8	46.8	46.8	45.5	45.5	44.2	44.2	43.0	40.5	39.1	36.6
82.5°	31.6	31.6	31.6	30.4	30.4	30.4	29.1	27.8	26.5	25.2	22.8
85°	20.2	20.2	20.2	19.0	19.0	19.0	17.8	17.8	16.4	15.1	12.6
87.5°	11.4	11.4	11.4	10.1	10.1	10.1	10.1	10.1	8.9	7.6	6.4
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°	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9
2.5°	1316.9	1299.1	1310.5	1310.5	1306.8	1316.9	1323.1	1328.2	1326.9	1315.5	1314.2
5°	1306.8	1291.5	1304.1	1305.5	1301.6	1315.5	1324.4	1330.8	1332.0	1321.9	1323.1
7.5°	1299.1	1286.5	1302.9	1308.0	1306.8	1319.4	1329.5	1339.6	1344.6	1337.0	1338.2
10°	1295.4	1285.2	1302.9	1310.5	1311.8	1325.6	1340.9	1354.8	1361.0	1356.0	1359.8
12.5°	1290.2	1284.0	1304.1	1315.5	1320.6	1334.5	1353.5	1369.9	1380.0	1377.5	1385.1
15°	1285.2	1280.1	1304.1	1320.6	1326.9	1339.6	1361.0	1385.1	1396.5	1395.1	1405.2
17.5°	1272.6	1271.4	1296.6	1314.2	1323.1	1338.2	1358.5	1387.6	1399.0	1401.5	1414.1
20°	1252.4	1252.4	1280.1	1299.1	1309.2	1323.1	1348.4	1376.2	1390.1	1392.6	1406.5
22.5°	1224.6	1227.1	1253.6	1272.6	1287.8	1297.9	1324.4	1353.5	1366.1	1369.9	1385.1
25°	1187.9	1190.5	1215.8	1234.6	1251.1	1262.5	1287.8	1314.2	1329.5	1333.2	1344.6
27.5°	1139.9	1145.0	1169.0	1187.9	1201.9	1209.4	1236.0	1263.8	1275.1	1278.9	1290.2
30°	1084.2	1085.5	1109.6	1126.0	1139.9	1146.2	1169.0	1198.0	1206.9	1210.6	1227.1
32.5°	1016.0	1014.8	1037.5	1052.8	1064.1	1071.6	1095.6	1114.6	1123.5	1129.8	1138.6
35°	933.9	932.6	949.1	966.8	975.6	978.1	1002.1	1022.4	1027.4	1032.5	1043.9
37.5°	841.6	841.6	855.5	864.4	874.5	878.2	889.6	912.4	921.2	920.0	928.9
40°	744.4	739.2	749.4	758.2	760.8	762.0	773.4	791.1	797.4	797.4	803.8
42.5°	642.0	634.4	635.6	640.8	643.2	634.4	642.0	653.4	649.6	654.6	655.9
45°	533.2	521.9	516.9	505.5	508.0	499.1	494.1	496.6	495.4	482.8	485.2
47.5°	444.9	424.6	415.8	399.4	395.5	385.5	379.1	367.8	357.6	357.6	351.4
50°	370.2	350.0	332.4	313.4	307.1	298.2	284.4	269.1	261.6	254.0	247.8
52.5°	310.9	289.4	267.9	247.8	238.9	227.5	208.5	193.4	179.5	171.9	164.2
55°	262.9	238.9	216.1	194.6	183.2	171.9	152.9	135.2	118.8	108.6	102.4
57.5°	226.2	203.5	179.5	156.8	146.6	134.0	113.8	94.8	79.6	68.2	61.9
60°	199.6	176.9	155.5	131.4	121.4	108.6	87.2	69.5	54.4	44.2	36.6
62.5°	176.9	156.8	134.0	112.5	102.4	89.8	69.5	51.9	37.9	27.8	21.5
65°	160.5	140.2	121.4	99.9	91.0	78.4	59.4	43.0	30.4	21.5	15.1
67.5°	141.5	123.9	104.9	87.2	78.4	68.2	50.5	36.6	25.2	17.8	12.6
70°	118.8	104.9	88.5	72.0	65.8	56.9	41.8	30.4	20.2	13.9	10.1
72.5°	94.8	83.4	70.8	58.1	53.1	44.2	34.1	24.0	15.1	10.1	7.6
75°	72.0	63.1	53.1	44.2	39.1	34.1	25.2	17.8	11.4	7.6	5.0
77.5°	49.2	45.5	37.9	30.4	27.8	24.0	16.4	11.4	7.6	5.0	2.5
80°	34.1	30.4	25.2	20.2	17.8	15.1	10.1	7.6	3.8	2.5	1.2
82.5°	21.5	17.8	15.1	12.6	11.4	8.9	6.4	3.8	2.5	1.2	1.2
85°	11.4	10.1	8.9	6.4	6.4	5.0	3.8	2.5	1.2	0.0	0.0
87.5°	6.4	5.0	3.8	2.5	2.5	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°	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9
2.5°	1329.5	1329.5	1328.2	1343.4	1325.6	1343.4	1334.5	1343.4	1330.8	1329.5	1330.8
5°	1339.6	1343.4	1344.6	1358.5	1342.1	1363.6	1356.0	1363.6	1354.8	1357.2	1361.0
7.5°	1359.8	1366.1	1364.9	1382.5	1366.1	1390.1	1385.1	1396.5	1387.6	1390.1	1395.1
10°	1382.5	1390.1	1391.4	1409.1	1393.9	1423.0	1416.6	1429.2	1421.8	1425.5	1431.9
12.5°	1409.1	1417.9	1419.2	1439.4	1423.0	1453.2	1449.5	1462.1	1455.9	1459.6	1467.2
15°	1429.2	1441.9	1444.5	1464.6	1447.0	1478.6	1476.0	1492.5	1482.4	1488.8	1495.0
17.5°	1439.4	1450.8	1455.9	1474.8	1459.6	1491.2	1488.8	1502.6	1495.0	1501.4	1508.9
20°	1433.1	1447.0	1450.8	1469.8	1454.6	1486.1	1482.4	1496.2	1488.8	1493.8	1501.4
22.5°	1410.4	1424.2	1429.2	1447.0	1433.1	1462.1	1460.9	1473.5	1463.4	1469.8	1476.0
25°	1369.9	1385.1	1387.6	1404.0	1388.9	1419.2	1416.6	1430.5	1423.0	1426.8	1435.6
27.5°	1311.8	1329.5	1333.2	1347.1	1335.8	1361.0	1361.0	1372.4	1363.6	1363.6	1372.4
30°	1242.2	1260.0	1262.5	1273.9	1263.8	1286.5	1287.8	1299.1	1285.2	1292.9	1294.1
32.5°	1157.6	1169.0	1176.5	1186.6	1171.5	1200.5	1196.8	1205.6	1198.0	1198.0	1204.4
35°	1055.2	1069.1	1072.9	1085.5	1072.9	1095.6	1095.6	1100.8	1093.1	1093.1	1103.2
37.5°	944.0	954.1	955.4	968.0	957.9	976.9	975.6	979.4	971.9	976.9	976.9
40°	813.9	821.4	824.0	830.2	829.0	842.9	841.6	844.1	840.4	841.6	844.1
42.5°	662.2	672.4	677.4	682.4	674.9	693.8	690.0	693.8	692.5	693.8	697.6
45°	487.8	495.4	499.1	500.5	497.9	509.2	518.1	510.5	511.9	509.2	514.4
47.5°	352.6	353.9	351.4	358.9	352.6	357.6	360.1	361.4	353.9	352.6	357.6
50°	241.4	247.8	238.9	242.6	241.4	246.4	243.9	245.1	237.6	241.4	238.9
52.5°	160.5	159.2	156.8	158.0	155.5	155.5	155.5	158.0	152.9	150.4	147.9
55°	97.2	94.8	89.8	88.5	88.5	89.8	87.2	84.6	84.6	83.4	83.4
57.5°	56.9	53.1	50.5	49.2	46.8	45.5	44.2	44.2	41.8	41.8	41.8
60°	31.6	27.8	25.2	22.8	22.8	21.5	20.2	19.0	19.0	19.0	17.8
62.5°	16.4	13.9	11.4	10.1	10.1	8.9	7.6	7.6	7.6	7.6	6.4
65°	11.4	8.9	7.6	6.4	6.4	5.0	5.0	5.0	5.0	5.0	5.0
67.5°	8.9	7.6	6.4	5.0	5.0	5.0	3.8	3.8	3.8	3.8	3.8
70°	7.6	5.0	5.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	5.0	5.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	3.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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: P252144

CATALOG NUMBER: LE_6B15D010 EC6B10208040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9	1321.9
2.5°	1342.1	1340.9	1342.1	1344.6	1339.6	1354.8	1347.1	1354.8
5°	1371.1	1372.4	1373.8	1377.5	1371.1	1390.1	1380.0	1391.4
7.5°	1409.1	1410.4	1411.6	1415.4	1411.6	1430.5	1419.2	1429.2
10°	1448.2	1450.8	1450.8	1457.1	1453.2	1471.0	1463.4	1476.0
12.5°	1484.9	1487.4	1490.0	1493.8	1491.2	1510.1	1503.9	1514.0
15°	1514.0	1519.0	1520.2	1525.4	1522.9	1543.0	1535.5	1545.6
17.5°	1527.9	1532.9	1532.9	1539.2	1536.8	1558.2	1548.1	1559.5
20°	1520.2	1524.1	1525.4	1531.6	1529.1	1550.6	1540.5	1554.4
22.5°	1496.2	1497.5	1498.8	1505.1	1503.9	1522.9	1514.0	1522.9
25°	1452.0	1455.9	1454.6	1459.6	1459.6	1474.8	1464.6	1472.2
27.5°	1388.9	1392.6	1392.6	1399.0	1393.9	1409.1	1399.0	1410.4
30°	1311.8	1315.5	1313.0	1318.1	1313.0	1328.2	1320.6	1324.4
32.5°	1219.5	1219.5	1220.8	1222.0	1219.5	1233.4	1225.9	1233.4
35°	1109.6	1112.1	1113.4	1114.6	1112.1	1122.2	1113.4	1118.4
37.5°	985.8	992.0	990.8	992.0	988.2	1000.9	993.2	995.9
40°	853.0	853.0	851.8	854.2	850.5	860.6	855.5	858.1
42.5°	698.9	702.6	697.6	703.9	693.8	707.8	702.6	698.9
45°	524.5	519.4	518.1	519.4	515.6	516.9	520.6	518.1
47.5°	357.6	357.6	355.1	351.4	356.4	357.6	352.6	352.6
50°	240.1	240.1	237.6	236.4	238.9	237.6	235.0	238.9
52.5°	152.9	147.9	147.9	150.4	147.9	145.4	149.1	146.6
55°	83.4	80.9	80.9	83.4	80.9	80.9	79.6	82.1
57.5°	40.5	41.8	40.5	40.5	40.5	40.5	39.1	40.5
60°	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
62.5°	7.6	7.6	6.4	6.4	6.4	6.4	6.4	6.4
65°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
67.5°	3.8	3.8	3.8	3.8	3.8	5.0	3.8	3.8
70°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	3.8	3.8	5.0	5.0	5.0	5.0	5.0	5.0
75°	2.5	2.5	2.5	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)