

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: P252159

Luminaire Tested: **LE_6B20D010 EC6B10209024 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252159
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_6B20D010 EC6B10209024 6LBSW1LI
Description: PORTFOLIO 6 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: 2342.5 lumens
Efficiency: N/A
Efficacy: 112.6 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

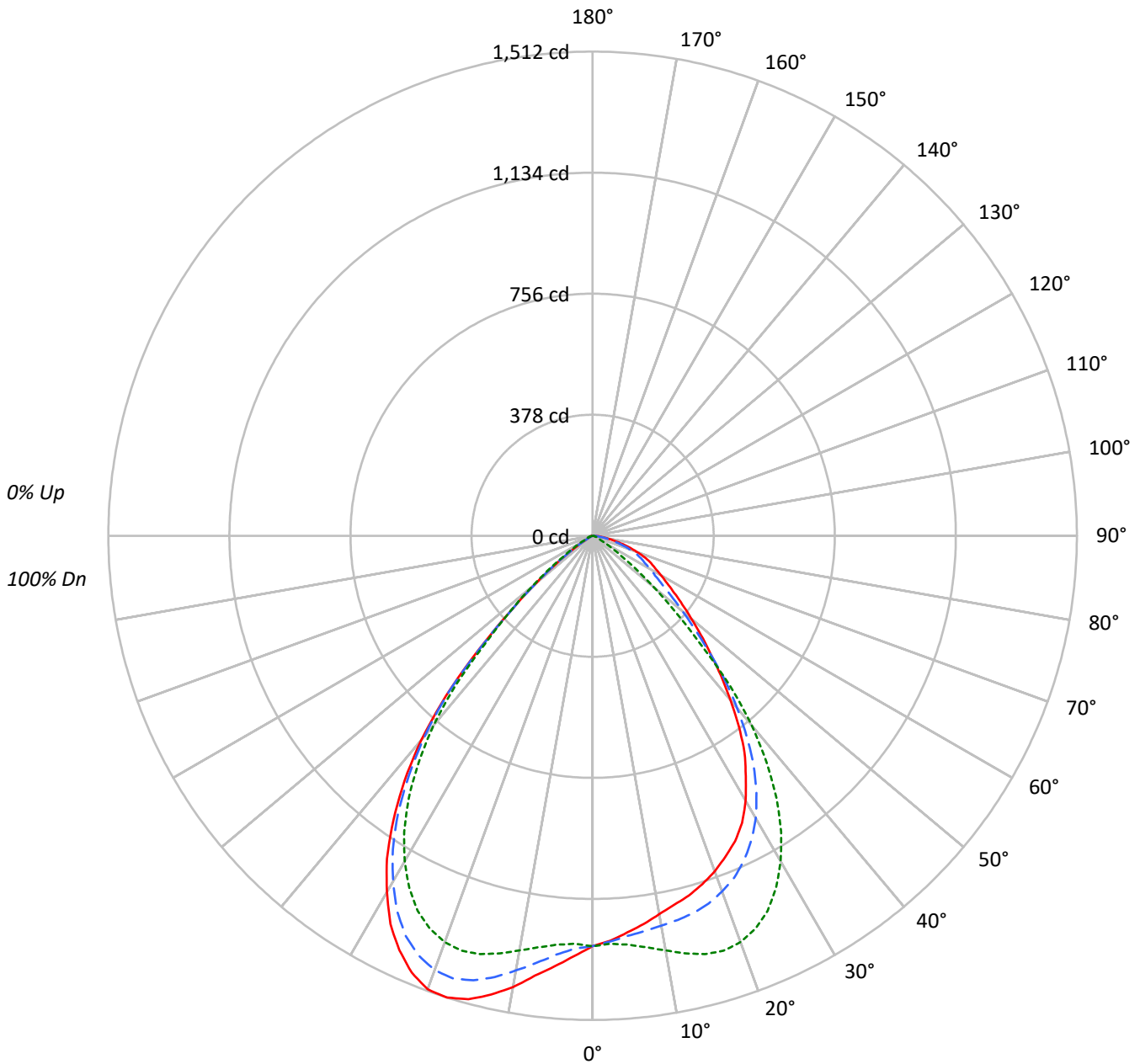
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	83606	83606	83606
5°	81437	83925	88339
10°	79463	87088	94800
15°	78538	91357	101205
20°	77405	93734	104627
25°	75757	93041	102751
30°	71989	88426	96728
35°	65866	79724	86350
40°	56976	65842	70849
45°	48051	43180	46354
50°	40791	24988	23496
55°	35397	11989	9054
60°	31968	5598	2231
65°	31013	3226	756
70°	27811	2575	687
75°	22838	1865	302
80°	17057	939	0
85°	14672	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	5.3
10°-20°	377.2	16.1
20°-30°	576.4	24.6
30°-40°	602.9	25.7
40°-50°	391.1	16.7
50°-60°	155.3	6.6
60°-70°	73.7	3.1
70°-80°	35.0	1.5
80°-90°	7.1	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°	1077.4	46.0
0°-40°	1680.3	71.7
0°-60°	2226.7	95.1
0°-90°	2342.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2342.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1282	1282	1282	1282	1282	
5°	1244	1255	1282	1313	1349	117
15°	1163	1219	1353	1437	1498	328
25°	1052	1119	1292	1380	1427	482
35°	827	877	1001	1060	1084	511
45°	521	516	468	496	502	405
55°	311	265	105	82	80	282
65°	201	167	21	5	5	196
75°	91	74	7	2	1	98
85°	20	12	0	0	0	23
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°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1265.6	1268.0	1254.6	1250.9	1260.8	1264.4	1265.6	1261.9	1263.1	1268.0	1268.0
5°	1243.5	1246.0	1233.8	1230.1	1239.9	1242.4	1246.0	1244.8	1248.5	1255.8	1254.6
7.5°	1222.8	1226.4	1212.9	1208.0	1220.2	1226.4	1228.9	1228.9	1233.8	1243.5	1244.8
10°	1199.5	1204.4	1192.1	1189.6	1203.1	1209.2	1210.5	1212.9	1220.2	1233.8	1236.2
12.5°	1179.9	1184.8	1176.1	1172.5	1187.2	1193.4	1195.8	1200.6	1209.2	1226.4	1228.9
15°	1162.8	1166.4	1156.6	1154.1	1168.9	1176.1	1177.4	1184.8	1195.8	1215.4	1219.0
17.5°	1140.6	1143.1	1135.8	1133.2	1148.0	1155.4	1156.6	1165.1	1178.6	1198.2	1204.4
20°	1114.9	1117.4	1110.0	1107.5	1122.2	1130.9	1132.0	1139.4	1155.4	1176.1	1182.2
22.5°	1084.2	1089.1	1080.6	1078.1	1092.9	1100.2	1103.9	1110.0	1125.9	1146.8	1155.4
25°	1052.4	1052.4	1046.2	1045.1	1058.5	1067.1	1065.9	1074.5	1090.4	1111.2	1118.6
27.5°	1010.8	1009.5	1003.4	1002.2	1016.9	1024.2	1021.8	1030.4	1045.1	1065.9	1073.2
30°	955.6	958.1	949.5	947.0	959.2	971.6	970.4	978.9	993.6	1013.2	1018.1
32.5°	889.5	891.9	890.8	887.0	898.0	904.1	907.9	914.0	926.2	947.0	952.0
35°	827.0	823.4	818.4	818.4	829.5	839.2	835.6	842.9	855.1	876.0	877.2
37.5°	749.8	748.6	746.1	743.6	755.9	758.4	759.6	764.5	775.5	792.8	790.2
40°	669.0	670.1	669.0	664.0	671.4	681.2	680.0	682.4	692.2	704.5	700.8
42.5°	593.0	593.0	593.0	588.1	596.6	601.5	604.0	602.8	605.2	616.2	611.4
45°	520.8	521.9	520.8	519.5	520.8	523.1	520.8	519.5	519.5	523.1	515.8
47.5°	458.2	458.2	454.5	450.9	454.5	455.8	452.1	448.4	447.2	446.0	433.8
50°	401.9	400.6	399.4	393.2	397.0	398.1	393.2	390.9	385.9	379.8	365.1
52.5°	352.9	351.6	350.4	344.2	346.8	348.0	343.0	338.1	332.0	327.1	308.8
55°	311.2	310.0	310.0	306.2	303.9	306.2	301.4	297.8	289.1	283.0	264.6
57.5°	275.6	275.6	273.2	269.5	270.8	270.8	265.9	261.0	253.6	246.2	231.5
60°	245.0	245.0	245.0	241.4	241.4	241.4	238.9	234.0	227.9	220.5	205.9
62.5°	220.5	220.5	219.2	215.6	216.9	216.9	214.4	209.5	203.4	198.5	183.8
65°	200.9	200.9	200.9	197.2	197.2	198.5	196.0	191.1	186.2	180.1	166.6
67.5°	176.4	175.2	175.2	172.8	174.0	175.2	172.8	169.1	163.0	159.2	147.0
70°	145.8	147.0	148.2	144.6	145.8	145.8	144.6	140.9	137.2	133.5	122.5
72.5°	118.9	118.9	117.6	116.4	116.4	117.6	115.1	111.5	109.0	106.6	98.0
75°	90.6	89.5	90.6	88.2	88.2	88.2	85.8	84.5	83.2	79.6	73.5
77.5°	66.1	64.9	64.9	62.5	63.8	63.8	62.5	60.0	57.6	56.4	51.5
80°	45.4	45.4	45.4	44.1	44.1	42.9	42.9	41.6	39.2	38.0	35.5
82.5°	30.6	30.6	30.6	29.4	29.4	29.4	28.1	27.0	25.8	24.5	22.0
85°	19.6	19.6	19.6	18.4	18.4	18.4	17.1	17.1	15.9	14.8	12.2
87.5°	11.0	11.0	11.0	9.8	9.8	9.8	9.8	9.8	8.6	7.4	6.1
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°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1276.6	1259.5	1270.5	1270.5	1266.9	1276.6	1282.8	1287.6	1286.4	1275.4	1274.1
5°	1266.9	1252.1	1264.4	1265.6	1261.9	1275.4	1284.0	1290.1	1291.4	1281.5	1282.8
7.5°	1259.5	1247.2	1263.1	1268.0	1266.9	1279.1	1288.9	1298.6	1303.6	1296.2	1297.5
10°	1255.8	1246.0	1263.1	1270.5	1271.8	1285.2	1299.9	1313.4	1319.5	1314.6	1318.2
12.5°	1250.9	1244.8	1264.4	1275.4	1280.2	1293.8	1312.1	1328.1	1337.9	1335.5	1342.8
15°	1246.0	1241.1	1264.4	1280.2	1286.4	1298.6	1319.5	1342.8	1353.9	1352.6	1362.4
17.5°	1233.8	1232.5	1257.0	1274.1	1282.8	1297.5	1317.0	1345.2	1356.2	1358.8	1371.0
20°	1214.1	1214.1	1241.1	1259.5	1269.2	1282.8	1307.2	1334.2	1347.8	1350.1	1363.6
22.5°	1187.2	1189.6	1215.4	1233.8	1248.5	1258.2	1284.0	1312.1	1324.4	1328.1	1342.8
25°	1151.6	1154.1	1178.6	1197.0	1212.9	1224.0	1248.5	1274.1	1288.9	1292.5	1303.6
27.5°	1105.1	1110.0	1133.2	1151.6	1165.1	1172.5	1198.2	1225.1	1236.2	1239.9	1250.9
30°	1051.2	1052.4	1075.8	1091.6	1105.1	1111.2	1133.2	1161.5	1170.0	1173.8	1189.6
32.5°	985.0	983.9	1005.9	1020.6	1031.6	1039.0	1062.2	1080.6	1089.1	1095.2	1103.9
35°	905.4	904.1	920.1	937.2	945.9	948.2	971.6	991.1	996.1	1001.0	1012.0
37.5°	816.0	816.0	829.5	838.0	847.9	851.5	862.5	884.6	893.1	891.9	900.5
40°	721.6	716.8	726.5	735.1	737.5	738.8	749.8	767.0	773.1	773.1	779.2
42.5°	622.4	615.0	616.2	621.1	623.6	615.0	622.4	633.4	629.8	634.6	635.9
45°	517.0	506.0	501.1	490.1	492.5	484.0	479.0	481.5	480.2	468.0	470.5
47.5°	431.2	411.6	403.1	387.1	383.5	373.6	367.5	356.5	346.8	346.8	340.6
50°	359.0	339.4	322.2	303.9	297.8	289.1	275.6	261.0	253.6	246.2	240.1
52.5°	301.4	280.6	259.8	240.1	231.5	220.5	202.1	187.5	174.0	166.6	159.2
55°	254.9	231.5	209.5	188.6	177.6	166.6	148.2	131.1	115.1	105.4	99.2
57.5°	219.2	197.2	174.0	151.9	142.1	129.9	110.2	91.9	77.1	66.1	60.0
60°	193.6	171.5	150.8	127.4	117.6	105.4	84.5	67.4	52.6	42.9	35.5
62.5°	171.5	151.9	129.9	109.0	99.2	87.0	67.4	50.2	36.8	27.0	20.9
65°	155.6	136.0	117.6	96.8	88.2	76.0	57.6	41.6	29.4	20.9	14.8
67.5°	137.2	120.1	101.8	84.5	76.0	66.1	49.0	35.5	24.5	17.1	12.2
70°	115.1	101.8	85.8	69.9	63.8	55.1	40.4	29.4	19.6	13.5	9.8
72.5°	91.9	80.9	68.6	56.4	51.5	42.9	33.1	23.2	14.8	9.8	7.4
75°	69.9	61.2	51.5	42.9	38.0	33.1	24.5	17.1	11.0	7.4	4.9
77.5°	47.8	44.1	36.8	29.4	27.0	23.2	15.9	11.0	7.4	4.9	2.5
80°	33.1	29.4	24.5	19.6	17.1	14.8	9.8	7.4	3.6	2.5	1.2
82.5°	20.9	17.1	14.8	12.2	11.0	8.6	6.1	3.6	2.5	1.2	1.2
85°	11.0	9.8	8.6	6.1	6.1	4.9	3.6	2.5	1.2	0.0	0.0
87.5°	6.1	4.9	3.6	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°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1288.9	1288.9	1287.6	1302.4	1285.2	1302.4	1293.8	1302.4	1290.1	1288.9	1290.1
5°	1298.6	1302.4	1303.6	1317.0	1301.1	1322.0	1314.6	1322.0	1313.4	1315.9	1319.5
7.5°	1318.2	1324.4	1323.2	1340.4	1324.4	1347.8	1342.8	1353.9	1345.2	1347.8	1352.6
10°	1340.4	1347.8	1348.9	1366.1	1351.4	1379.5	1373.4	1385.6	1378.4	1382.0	1388.1
12.5°	1366.1	1374.6	1375.9	1395.5	1379.5	1409.0	1405.2	1417.5	1411.4	1415.1	1422.4
15°	1385.6	1397.9	1400.4	1420.0	1402.9	1433.5	1431.0	1446.9	1437.1	1443.2	1449.4
17.5°	1395.5	1406.5	1411.4	1429.8	1415.1	1445.8	1443.2	1456.8	1449.4	1455.5	1462.9
20°	1389.4	1402.9	1406.5	1424.9	1410.1	1440.8	1437.1	1450.6	1443.2	1448.1	1455.5
22.5°	1367.2	1380.8	1385.6	1402.9	1389.4	1417.5	1416.2	1428.5	1418.8	1424.9	1431.0
25°	1328.1	1342.8	1345.2	1361.1	1346.5	1375.9	1373.4	1386.9	1379.5	1383.2	1391.8
27.5°	1271.8	1288.9	1292.5	1306.0	1295.0	1319.5	1319.5	1330.5	1322.0	1322.0	1330.5
30°	1204.4	1221.5	1224.0	1235.0	1225.1	1247.2	1248.5	1259.5	1246.0	1253.4	1254.6
32.5°	1122.2	1133.2	1140.6	1150.5	1135.8	1163.9	1160.2	1168.9	1161.5	1161.5	1167.6
35°	1023.0	1036.5	1040.1	1052.4	1040.1	1062.2	1062.2	1067.1	1059.8	1059.8	1069.6
37.5°	915.2	925.0	926.2	938.5	928.6	947.0	945.9	949.5	942.1	947.0	947.0
40°	789.0	796.4	798.9	805.0	803.8	817.2	816.0	818.4	814.8	816.0	818.4
42.5°	642.0	651.8	656.8	661.6	654.2	672.6	669.0	672.6	671.4	672.6	676.2
45°	472.9	480.2	484.0	485.1	482.8	493.8	502.4	495.0	496.2	493.8	498.6
47.5°	341.9	343.0	340.6	348.0	341.9	346.8	349.1	350.4	343.0	341.9	346.8
50°	234.0	240.1	231.5	235.2	234.0	238.9	236.5	237.6	230.4	234.0	231.5
52.5°	155.6	154.4	151.9	153.1	150.8	150.8	150.8	153.1	148.2	145.8	143.4
55°	94.4	91.9	87.0	85.8	85.8	87.0	84.5	82.1	82.1	80.9	80.9
57.5°	55.1	51.5	49.0	47.8	45.4	44.1	42.9	42.9	40.4	40.4	40.4
60°	30.6	27.0	24.5	22.0	22.0	20.9	19.6	18.4	18.4	18.4	17.1
62.5°	15.9	13.5	11.0	9.8	9.8	8.6	7.4	7.4	7.4	7.4	6.1
65°	11.0	8.6	7.4	6.1	6.1	4.9	4.9	4.9	4.9	4.9	4.9
67.5°	8.6	7.4	6.1	4.9	4.9	4.9	3.6	3.6	3.6	3.6	3.6
70°	7.4	4.9	4.9	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	4.9	4.9	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
75°	3.6	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: P252159

CATALOG NUMBER: LE_6B20D010 EC6B10209024 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5	1281.5
2.5°	1301.1	1299.9	1301.1	1303.6	1298.6	1313.4	1306.0	1313.4
5°	1329.4	1330.5	1331.8	1335.5	1329.4	1347.8	1337.9	1348.9
7.5°	1366.1	1367.2	1368.5	1372.2	1368.5	1386.9	1375.9	1385.6
10°	1404.0	1406.5	1406.5	1412.6	1409.0	1426.1	1418.8	1431.0
12.5°	1439.6	1442.0	1444.5	1448.1	1445.8	1464.1	1458.0	1467.8
15°	1467.8	1472.6	1473.9	1478.8	1476.4	1496.0	1488.6	1498.4
17.5°	1481.2	1486.1	1486.1	1492.2	1489.8	1510.6	1500.9	1511.9
20°	1473.9	1477.5	1478.8	1484.9	1482.5	1503.2	1493.5	1507.0
22.5°	1450.6	1451.9	1453.0	1459.1	1458.0	1476.4	1467.8	1476.4
25°	1407.8	1411.4	1410.1	1415.1	1415.1	1429.8	1420.0	1427.4
27.5°	1346.5	1350.1	1350.1	1356.2	1351.4	1366.1	1356.2	1367.2
30°	1271.8	1275.4	1273.0	1277.9	1273.0	1287.6	1280.2	1284.0
32.5°	1182.2	1182.2	1183.5	1184.8	1182.2	1195.8	1188.4	1195.8
35°	1075.8	1078.1	1079.4	1080.6	1078.1	1088.0	1079.4	1084.2
37.5°	955.6	961.8	960.5	961.8	958.1	970.4	963.0	965.4
40°	827.0	827.0	825.8	828.2	824.5	834.4	829.5	831.9
42.5°	677.5	681.2	676.2	682.4	672.6	686.1	681.2	677.5
45°	508.5	503.5	502.4	503.5	499.9	501.1	504.8	502.4
47.5°	346.8	346.8	344.2	340.6	345.5	346.8	341.9	341.9
50°	232.8	232.8	230.4	229.1	231.5	230.4	227.9	231.5
52.5°	148.2	143.4	143.4	145.8	143.4	140.9	144.6	142.1
55°	80.9	78.4	78.4	80.9	78.4	78.4	77.1	79.6
57.5°	39.2	40.4	39.2	39.2	39.2	39.2	38.0	39.2
60°	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
62.5°	7.4	7.4	6.1	6.1	6.1	6.1	6.1	6.1
65°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
67.5°	3.6	3.6	3.6	3.6	3.6	4.9	3.6	3.6
70°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	3.6	3.6	4.9	4.9	4.9	4.9	4.9	4.9
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



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)