

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: P252165

Luminaire Tested: **LE_6B20D010 EC6B10209727 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252165
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 EC6B10209727 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2316.3 lumens
Efficiency: N/A
Efficacy: 111.4 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

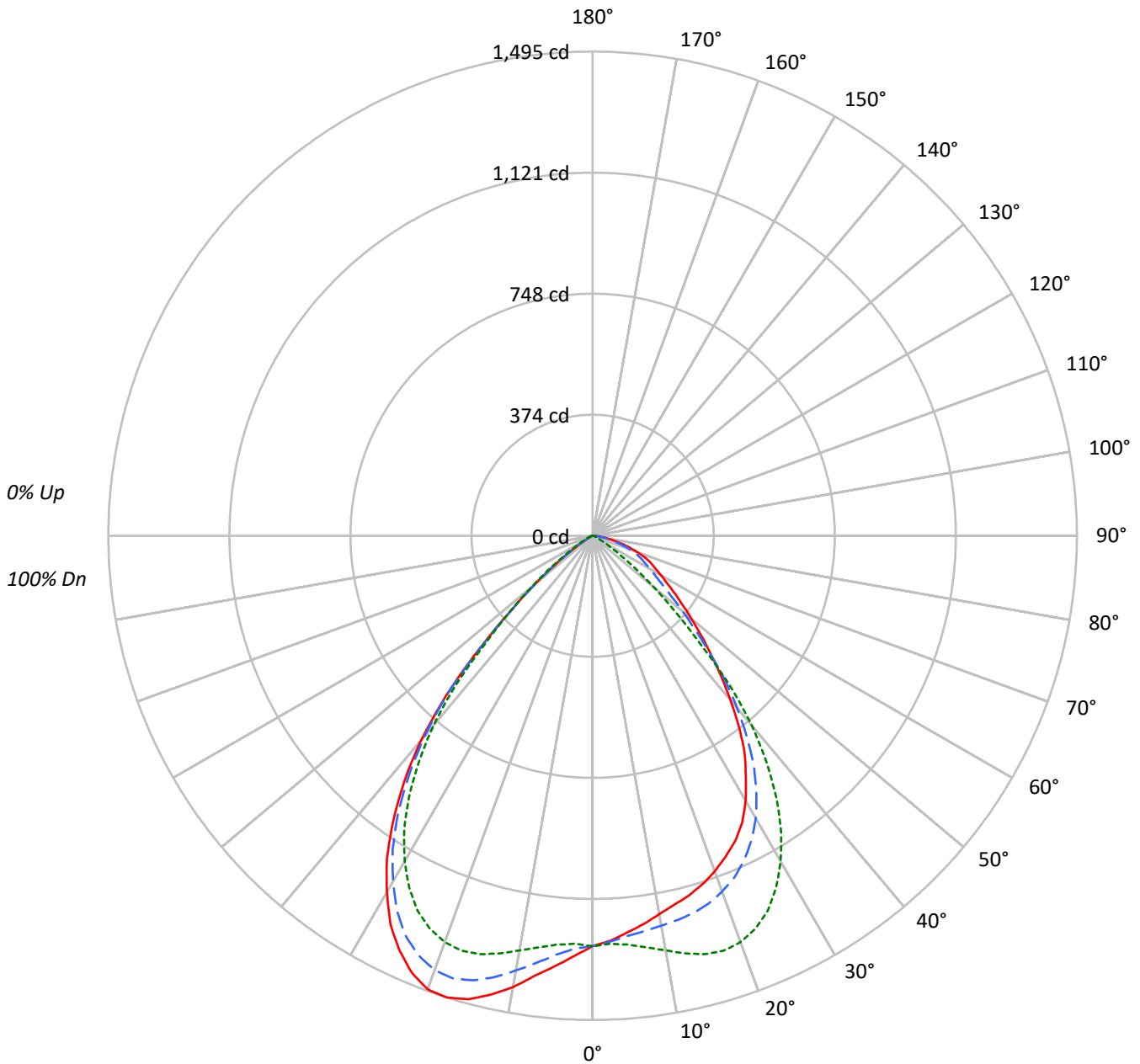
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	82666	82666	82666
5°	80526	82982	87350
10°	78569	86115	93740
15°	77646	90331	100070
20°	76537	92686	103454
25°	74908	92004	101600
30°	71183	87432	95643
35°	65133	78832	85386
40°	56337	65101	70057
45°	47507	42700	45837
50°	40335	24714	23243
55°	35010	11841	8963
60°	31603	5532	2218
65°	30658	3180	756
70°	27487	2556	687
75°	22586	1815	302
80°	16869	902	0
85°	14522	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.4	5.3
10°-20°	373.0	16.1
20°-30°	569.9	24.6
30°-40°	596.1	25.7
40°-50°	386.7	16.7
50°-60°	153.5	6.6
60°-70°	72.8	3.1
70°-80°	34.6	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°	1065.4	46.0
0°-40°	1661.5	71.7
0°-60°	2201.7	95.1
0°-90°	2316.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2316.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1267	1267	1267	1267	1267	
5°	1230	1240	1267	1299	1334	116
15°	1150	1205	1337	1421	1482	324
25°	1041	1106	1278	1364	1411	477
35°	818	867	990	1048	1072	506
45°	515	510	463	491	497	401
55°	308	262	104	81	79	279
65°	199	165	21	5	5	194
75°	90	73	7	2	1	97
85°	19	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°	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1
2.5°	1251.4	1253.9	1240.5	1236.9	1246.6	1250.2	1251.4	1247.8	1249.0	1253.9	1253.9
5°	1229.6	1232.0	1219.9	1216.2	1226.0	1228.4	1232.0	1230.9	1234.5	1241.8	1240.5
7.5°	1209.0	1212.6	1199.4	1194.5	1206.6	1212.6	1215.1	1215.1	1219.9	1229.6	1230.9
10°	1186.0	1190.9	1178.8	1176.4	1189.6	1195.8	1196.9	1199.4	1206.6	1219.9	1222.4
12.5°	1166.6	1171.5	1163.0	1159.4	1173.9	1180.0	1182.4	1187.2	1195.8	1212.6	1215.1
15°	1149.6	1153.2	1143.6	1141.1	1155.8	1163.0	1164.2	1171.5	1182.4	1201.8	1205.4
17.5°	1127.9	1130.2	1123.0	1120.6	1135.1	1142.4	1143.6	1152.1	1165.4	1184.8	1190.9
20°	1102.4	1104.9	1097.6	1095.1	1109.6	1118.1	1119.4	1126.6	1142.4	1163.0	1169.0
22.5°	1072.1	1077.0	1068.5	1066.1	1080.6	1087.9	1091.5	1097.6	1113.4	1133.9	1142.4
25°	1040.6	1040.6	1034.6	1033.4	1046.8	1055.1	1054.0	1062.4	1078.1	1098.8	1106.0
27.5°	999.5	998.2	992.1	991.0	1005.5	1012.8	1010.4	1018.9	1033.4	1054.0	1061.2
30°	944.9	947.4	938.9	936.5	948.5	960.6	959.5	968.0	982.5	1001.9	1006.8
32.5°	879.5	881.9	880.8	877.1	888.0	894.0	897.6	903.8	915.9	936.5	941.2
35°	817.8	814.1	809.2	809.2	820.1	829.9	826.2	833.5	845.6	866.1	867.4
37.5°	741.4	740.2	737.8	735.4	747.5	749.9	751.1	756.0	766.9	783.8	781.4
40°	661.5	662.6	661.5	656.6	663.9	673.6	672.4	674.8	684.5	696.6	693.0
42.5°	586.4	586.4	586.4	581.5	590.0	594.9	597.2	596.0	598.5	609.4	604.5
45°	514.9	516.1	514.9	513.6	514.9	517.2	514.9	513.6	513.6	517.2	510.0
47.5°	453.1	453.1	449.5	445.8	449.5	450.6	447.0	443.4	442.1	441.0	428.9
50°	397.4	396.1	394.9	388.9	392.5	393.8	388.9	386.5	381.6	375.5	361.0
52.5°	348.9	347.6	346.5	340.4	342.9	344.0	339.2	334.4	328.2	323.5	305.2
55°	307.8	306.5	306.5	302.9	300.5	302.9	298.0	294.4	285.9	279.9	261.6
57.5°	272.6	272.6	270.1	266.5	267.8	267.8	262.9	258.0	250.8	243.5	229.0
60°	242.2	242.2	242.2	238.6	238.6	238.6	236.2	231.4	225.4	218.0	203.5
62.5°	218.0	218.0	216.9	213.2	214.4	214.4	212.0	207.1	201.1	196.2	181.8
65°	198.6	198.6	198.6	195.0	195.0	196.2	193.9	189.0	184.1	178.1	164.8
67.5°	174.5	173.2	173.2	170.9	172.0	173.2	170.9	167.1	161.1	157.5	145.4
70°	144.1	145.4	146.6	143.0	144.1	144.1	143.0	139.4	135.6	132.0	121.1
72.5°	117.5	117.5	116.2	115.1	115.1	116.2	113.9	110.2	107.9	105.4	96.9
75°	89.6	88.4	89.6	87.2	87.2	87.2	84.8	83.6	82.4	78.8	72.6
77.5°	65.4	64.2	64.2	61.8	63.0	63.0	61.8	59.4	57.0	55.8	50.9
80°	44.9	44.9	44.9	43.6	43.6	42.4	42.4	41.2	38.8	37.5	35.1
82.5°	30.2	30.2	30.2	29.1	29.1	29.1	27.9	26.6	25.5	24.2	21.8
85°	19.4	19.4	19.4	18.1	18.1	18.1	17.0	17.0	15.8	14.5	12.1
87.5°	10.9	10.9	10.9	9.8	9.8	9.8	9.8	9.8	8.5	7.2	6.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1
2.5°	1262.4	1245.4	1256.2	1256.2	1252.6	1262.4	1268.4	1273.2	1272.0	1261.1	1259.9
5°	1252.6	1238.1	1250.2	1251.4	1247.8	1261.1	1269.6	1275.6	1276.9	1267.1	1268.4
7.5°	1245.4	1233.2	1249.0	1253.9	1252.6	1264.8	1274.5	1284.1	1289.0	1281.8	1282.9
10°	1241.8	1232.0	1249.0	1256.2	1257.5	1270.8	1285.4	1298.6	1304.8	1299.9	1303.5
12.5°	1236.9	1230.9	1250.2	1261.1	1266.0	1279.2	1297.5	1313.2	1322.9	1320.5	1327.8
15°	1232.0	1227.2	1250.2	1266.0	1272.0	1284.1	1304.8	1327.8	1338.6	1337.4	1347.1
17.5°	1219.9	1218.8	1243.0	1259.9	1268.4	1282.9	1302.2	1330.1	1341.1	1343.5	1355.6
20°	1200.5	1200.5	1227.2	1245.4	1255.0	1268.4	1292.6	1319.2	1332.6	1335.0	1348.4
22.5°	1173.9	1176.4	1201.8	1219.9	1234.5	1244.1	1269.6	1297.5	1309.6	1313.2	1327.8
25°	1138.8	1141.1	1165.4	1183.6	1199.4	1210.2	1234.5	1259.9	1274.5	1278.1	1289.0
27.5°	1092.8	1097.6	1120.6	1138.8	1152.1	1159.4	1184.8	1211.5	1222.4	1226.0	1236.9
30°	1039.4	1040.6	1063.6	1079.4	1092.8	1098.8	1120.6	1148.5	1156.9	1160.6	1176.4
32.5°	974.0	972.8	994.6	1009.1	1020.0	1027.2	1050.4	1068.5	1077.0	1083.0	1091.5
35°	895.2	894.0	909.8	926.8	935.2	937.6	960.6	980.0	984.9	989.8	1000.6
37.5°	806.9	806.9	820.1	828.6	838.4	842.0	852.9	874.6	883.1	881.9	890.4
40°	713.5	708.8	718.4	726.9	729.2	730.5	741.4	758.4	764.4	764.4	770.5
42.5°	615.4	608.1	609.4	614.2	616.6	608.1	615.4	626.4	622.6	627.5	628.8
45°	511.2	500.4	495.5	484.6	487.0	478.5	473.6	476.1	474.9	462.8	465.2
47.5°	426.4	407.0	398.6	382.9	379.1	369.5	363.4	352.5	342.9	342.9	336.8
50°	355.0	335.6	318.6	300.5	294.4	285.9	272.6	258.0	250.8	243.5	237.5
52.5°	298.0	277.4	256.9	237.5	229.0	218.0	199.9	185.4	172.0	164.8	157.5
55°	252.0	229.0	207.1	186.6	175.6	164.8	146.6	129.6	113.9	104.1	98.1
57.5°	216.9	195.0	172.0	150.2	140.5	128.4	109.0	90.9	76.4	65.4	59.4
60°	191.4	169.6	149.0	126.0	116.2	104.1	83.6	66.6	52.1	42.4	35.1
62.5°	169.6	150.2	128.4	107.9	98.1	86.0	66.6	49.6	36.4	26.6	20.6
65°	153.9	134.5	116.2	95.8	87.2	75.1	57.0	41.2	29.1	20.6	14.5
67.5°	135.6	118.8	100.5	83.6	75.1	65.4	48.5	35.1	24.2	17.0	12.1
70°	113.9	100.5	84.8	69.0	63.0	54.5	40.0	29.1	19.4	13.4	9.8
72.5°	90.9	80.0	67.9	55.8	50.9	42.4	32.8	23.0	14.5	9.8	7.2
75°	69.0	60.6	50.9	42.4	37.5	32.8	24.2	17.0	10.9	7.2	4.9
77.5°	47.2	43.6	36.4	29.1	26.6	23.0	15.8	10.9	7.2	4.9	2.4
80°	32.8	29.1	24.2	19.4	17.0	14.5	9.8	7.2	3.6	2.4	1.2
82.5°	20.6	17.0	14.5	12.1	10.9	8.5	6.0	3.6	2.4	1.2	1.2
85°	10.9	9.8	8.5	6.0	6.0	4.9	3.6	2.4	1.2	0.0	0.0
87.5°	6.0	4.9	3.6	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°	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1
2.5°	1274.5	1274.5	1273.2	1287.8	1270.8	1287.8	1279.2	1287.8	1275.6	1274.5	1275.6
5°	1284.1	1287.8	1289.0	1302.2	1286.5	1307.1	1299.9	1307.1	1298.6	1301.1	1304.8
7.5°	1303.5	1309.6	1308.4	1325.4	1309.6	1332.6	1327.8	1338.6	1330.1	1332.6	1337.4
10°	1325.4	1332.6	1333.8	1350.8	1336.2	1364.1	1358.0	1370.1	1362.9	1366.5	1372.6
12.5°	1350.8	1359.2	1360.5	1379.9	1364.1	1393.1	1389.5	1401.6	1395.6	1399.2	1406.5
15°	1370.1	1382.2	1384.6	1404.1	1387.1	1417.4	1415.0	1430.8	1421.0	1427.1	1433.1
17.5°	1379.9	1390.8	1395.6	1413.8	1399.2	1429.5	1427.1	1440.4	1433.1	1439.2	1446.5
20°	1373.8	1387.1	1390.8	1408.9	1394.4	1424.6	1421.0	1434.4	1427.1	1431.9	1439.2
22.5°	1352.0	1365.2	1370.1	1387.1	1373.8	1401.6	1400.4	1412.5	1402.9	1408.9	1415.0
25°	1313.2	1327.8	1330.1	1345.9	1331.4	1360.5	1358.0	1371.4	1364.1	1367.8	1376.2
27.5°	1257.5	1274.5	1278.1	1291.4	1280.5	1304.8	1304.8	1315.6	1307.1	1307.1	1315.6
30°	1190.9	1207.8	1210.2	1221.1	1211.5	1233.2	1234.5	1245.4	1232.0	1239.2	1240.5
32.5°	1109.6	1120.6	1127.9	1137.5	1123.0	1150.9	1147.2	1155.8	1148.5	1148.5	1154.5
35°	1011.5	1024.9	1028.5	1040.6	1028.5	1050.4	1050.4	1055.1	1047.9	1047.9	1057.6
37.5°	905.0	914.6	915.9	928.0	918.2	936.5	935.2	938.9	931.6	936.5	936.5
40°	780.1	787.5	789.9	795.9	794.8	808.0	806.9	809.2	805.6	806.9	809.2
42.5°	634.8	644.5	649.4	654.1	646.9	665.1	661.5	665.1	663.9	665.1	668.8
45°	467.6	474.9	478.5	479.8	477.2	488.2	496.8	489.4	490.6	488.2	493.0
47.5°	338.0	339.2	336.8	344.0	338.0	342.9	345.2	346.5	339.2	338.0	342.9
50°	231.4	237.5	229.0	232.6	231.4	236.2	233.8	235.0	227.8	231.4	229.0
52.5°	153.9	152.6	150.2	151.4	149.0	149.0	149.0	151.4	146.6	144.1	141.8
55°	93.2	90.9	86.0	84.8	84.8	86.0	83.6	81.1	81.1	80.0	80.0
57.5°	54.5	50.9	48.5	47.2	44.9	43.6	42.4	42.4	40.0	40.0	40.0
60°	30.2	26.6	24.2	21.8	21.8	20.6	19.4	18.1	18.1	18.1	17.0
62.5°	15.8	13.4	10.9	9.8	9.8	8.5	7.2	7.2	7.2	7.2	6.0
65°	10.9	8.5	7.2	6.0	6.0	4.9	4.9	4.9	4.9	4.9	4.9
67.5°	8.5	7.2	6.0	4.9	4.9	4.9	3.6	3.6	3.6	3.6	3.6
70°	7.2	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	2.4	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: P252165

CATALOG NUMBER: LE_6B20D010 EC6B10209727 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1	1267.1
2.5°	1286.5	1285.4	1286.5	1289.0	1284.1	1298.6	1291.4	1298.6
5°	1314.4	1315.6	1316.9	1320.5	1314.4	1332.6	1322.9	1333.8
7.5°	1350.8	1352.0	1353.1	1356.9	1353.1	1371.4	1360.5	1370.1
10°	1388.4	1390.8	1390.8	1396.8	1393.1	1410.1	1402.9	1415.0
12.5°	1423.5	1425.9	1428.2	1431.9	1429.5	1447.6	1441.6	1451.2
15°	1451.2	1456.1	1457.4	1462.2	1459.8	1479.1	1471.9	1481.6
17.5°	1464.6	1469.5	1469.5	1475.5	1473.1	1493.8	1484.0	1494.9
20°	1457.4	1461.0	1462.2	1468.2	1465.9	1486.5	1476.8	1490.1
22.5°	1434.4	1435.5	1436.8	1442.9	1441.6	1459.8	1451.2	1459.8
25°	1392.0	1395.6	1394.4	1399.2	1399.2	1413.8	1404.1	1411.4
27.5°	1331.4	1335.0	1335.0	1341.1	1336.2	1350.8	1341.1	1352.0
30°	1257.5	1261.1	1258.8	1263.5	1258.8	1273.2	1266.0	1269.6
32.5°	1169.0	1169.0	1170.2	1171.5	1169.0	1182.4	1175.1	1182.4
35°	1063.6	1066.1	1067.2	1068.5	1066.1	1075.8	1067.2	1072.1
37.5°	944.9	951.0	949.8	951.0	947.4	959.5	952.2	954.6
40°	817.8	817.8	816.5	818.9	815.2	825.0	820.1	822.6
42.5°	669.9	673.6	668.8	674.8	665.1	678.4	673.6	669.9
45°	502.8	497.9	496.8	497.9	494.2	495.5	499.1	496.8
47.5°	342.9	342.9	340.4	336.8	341.6	342.9	338.0	338.0
50°	230.1	230.1	227.8	226.5	229.0	227.8	225.4	229.0
52.5°	146.6	141.8	141.8	144.1	141.8	139.4	143.0	140.5
55°	80.0	77.5	77.5	80.0	77.5	77.5	76.4	78.8
57.5°	38.8	40.0	38.8	38.8	38.8	38.8	37.5	38.8
60°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
62.5°	7.2	7.2	6.0	6.0	6.0	6.0	6.0	6.0
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°	2.4	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



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













(END OF REPORT)