

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: P252261

Luminaire Tested: **LE\_6B20D010 EC6B10208040 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252261  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B20D010 EC6B10208040 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2438.7 lumens  
Efficiency: N/A  
Efficacy: 117.2 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

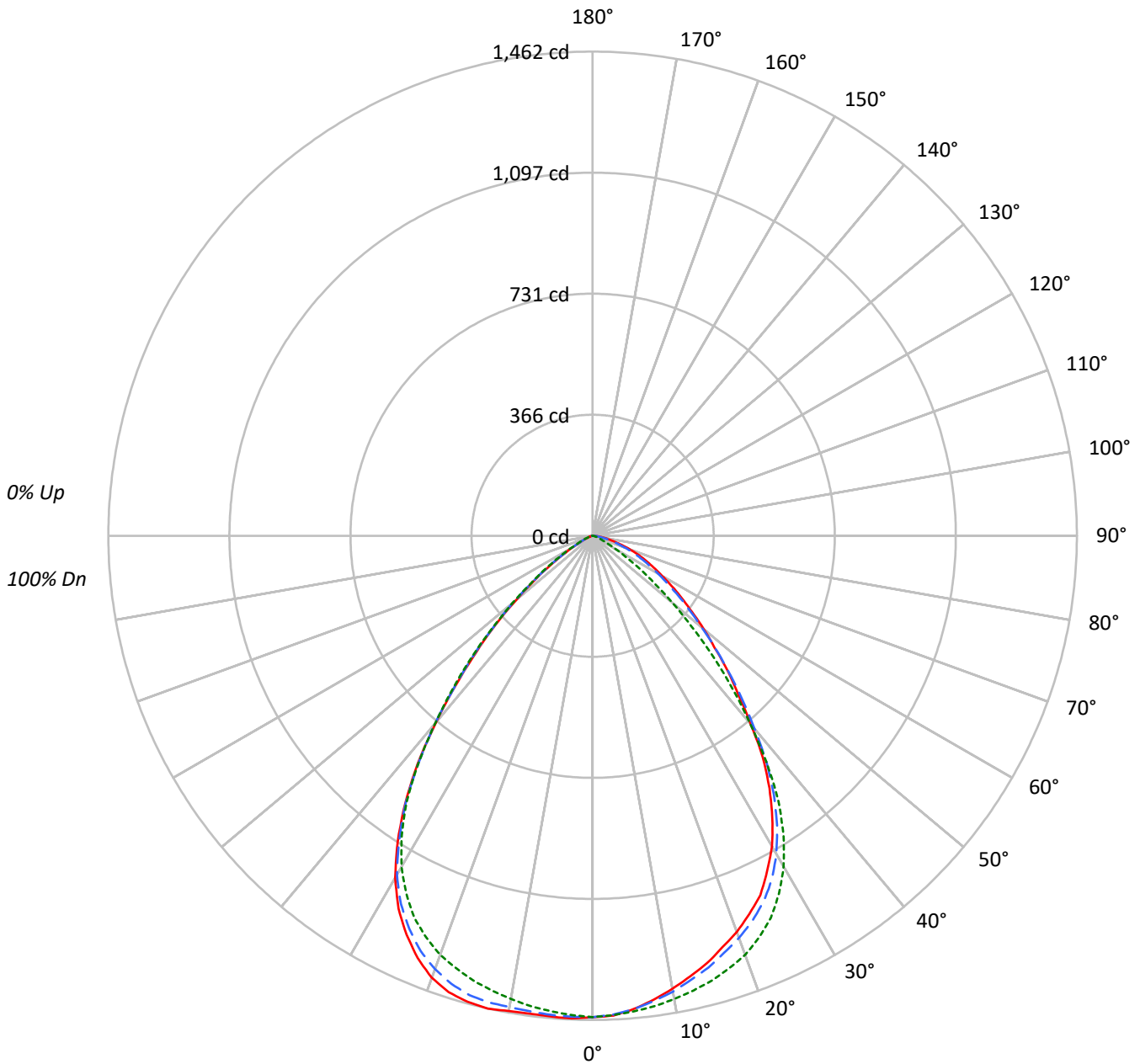
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47				47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				43
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40				40
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37				37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	94834	94834	94834
5°	93939	94397	95425
10°	92004	94084	96529
15°	90236	93917	98416
20°	88374	93484	98601
25°	86195	91630	95668
30°	81601	86890	89797
35°	74109	77884	78577
40°	63244	62946	62648
45°	53135	47138	45680
50°	44364	31890	30297
55°	37331	19564	17767
60°	31603	10308	8938
65°	27386	5418	4338
70°	22776	3338	2327
75°	16838	2218	1311
80°	13187	1315	676
85°	10480	1347	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.0	5.6
10°-20°	392.3	16.1
20°-30°	579.2	23.8
30°-40°	597.0	24.5
40°-50°	412.3	16.9
50°-60°	203.2	8.3
60°-70°	82.3	3.4
70°-80°	29.3	1.2
80°-90°	6.1	0.2
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°	1108.5	45.5
0°-40°	1705.5	69.9
0°-60°	2321.0	95.2
0°-90°	2438.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2438.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1454	1454	1454	1454	1454	
5°	1434	1434	1441	1452	1457	135
15°	1336	1350	1390	1436	1457	376
25°	1197	1220	1273	1310	1329	547
35°	930	953	978	983	987	577
45°	576	579	511	504	495	445
55°	328	316	172	162	156	297
65°	177	160	35	28	28	176
75°	67	56	9	5	5	75
85°	14	10	2	0	0	17
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°	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6
2.5°	1450.1	1444.9	1448.4	1441.4	1450.1	1441.4	1443.1	1444.9	1443.1	1444.9	1446.6
5°	1434.4	1429.1	1434.4	1425.5	1434.4	1429.1	1429.1	1430.9	1430.9	1432.6	1434.4
7.5°	1413.2	1408.0	1413.2	1404.5	1415.0	1409.8	1409.8	1413.2	1411.5	1413.2	1416.8
10°	1388.8	1381.6	1386.9	1381.6	1392.2	1385.1	1388.8	1388.8	1388.8	1394.0	1397.5
12.5°	1362.4	1355.4	1362.4	1353.6	1364.1	1358.9	1360.6	1365.9	1367.6	1371.1	1372.9
15°	1336.0	1327.2	1330.8	1325.5	1336.0	1330.8	1332.5	1339.5	1339.5	1344.8	1350.1
17.5°	1302.6	1295.6	1302.6	1295.6	1304.4	1300.9	1304.4	1309.6	1309.6	1315.0	1320.2
20°	1272.9	1265.8	1271.0	1265.8	1276.4	1271.0	1272.9	1279.9	1281.6	1286.9	1292.1
22.5°	1236.0	1230.6	1234.2	1228.9	1239.5	1236.0	1237.8	1244.8	1246.5	1250.0	1258.8
25°	1197.4	1186.8	1192.0	1188.5	1199.1	1193.9	1197.4	1204.4	1207.9	1213.1	1220.1
27.5°	1141.1	1135.9	1139.4	1139.4	1148.1	1142.9	1144.6	1151.6	1157.0	1162.2	1171.0
30°	1083.2	1074.4	1078.0	1079.8	1086.8	1083.2	1086.8	1093.8	1095.5	1102.5	1109.5
32.5°	1009.5	1006.0	1013.0	1009.5	1013.0	1013.0	1014.8	1020.0	1023.5	1027.0	1035.8
35°	930.5	923.5	930.5	927.0	935.8	930.5	935.8	941.0	941.0	948.0	953.2
37.5°	844.5	835.6	839.1	839.1	842.8	840.9	840.9	849.8	851.5	856.8	862.0
40°	742.6	739.1	746.1	744.4	746.1	746.1	747.9	753.1	756.6	758.4	760.1
42.5°	651.4	653.1	654.9	654.9	654.9	654.9	654.9	661.9	660.1	665.4	667.1
45°	575.9	568.9	572.4	570.6	575.9	570.6	575.9	581.1	577.6	582.9	579.4
47.5°	498.6	498.6	498.6	496.9	500.4	498.6	502.1	503.9	503.9	503.9	502.1
50°	437.1	431.9	433.6	433.6	435.4	433.6	437.1	438.9	438.9	435.4	428.4
52.5°	377.5	375.8	375.8	379.2	379.2	377.5	377.5	377.5	377.5	372.2	368.6
55°	328.2	324.8	326.5	326.5	326.5	326.5	328.2	326.5	326.5	321.2	316.0
57.5°	284.4	280.9	280.9	280.9	282.6	280.9	280.9	280.9	279.1	273.9	266.9
60°	242.2	240.5	242.2	242.2	244.0	242.2	242.2	242.2	238.8	233.5	226.5
62.5°	207.1	207.1	207.1	208.9	208.9	207.1	207.1	205.4	203.6	196.6	189.6
65°	177.4	175.5	177.4	177.4	179.1	179.1	177.4	175.5	173.8	166.8	159.8
67.5°	147.5	145.8	147.5	147.5	149.2	147.5	147.5	147.5	142.2	138.8	131.6
70°	119.4	117.6	117.6	117.6	119.4	115.9	117.6	117.6	114.1	108.9	101.9
72.5°	91.2	91.2	91.2	91.2	91.2	91.2	89.5	89.5	86.0	80.8	77.2
75°	66.8	66.8	68.5	68.5	66.8	66.8	66.8	65.0	63.2	59.8	56.1
77.5°	49.1	49.1	49.1	49.1	47.4	47.4	47.4	45.6	43.9	42.1	38.6
80°	35.1	35.1	35.1	33.4	35.1	33.4	33.4	33.4	29.9	28.1	26.4
82.5°	24.6	22.9	22.9	22.9	22.9	22.9	22.9	21.1	21.1	19.2	17.5
85°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	12.2	10.5	10.5
87.5°	7.0	8.8	8.8	8.8	8.8	8.8	8.8	7.0	7.0	7.0	5.2
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°	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6
2.5°	1446.6	1446.6	1450.1	1444.9	1453.6	1448.4	1446.6	1455.4	1450.1	1448.4	1451.9
5°	1434.4	1436.1	1437.9	1434.4	1443.1	1437.9	1437.9	1446.6	1443.1	1441.4	1446.6
7.5°	1418.5	1420.2	1423.8	1422.0	1429.1	1425.5	1427.2	1436.1	1432.6	1432.6	1437.9
10°	1399.2	1402.8	1406.2	1406.2	1415.0	1411.5	1411.5	1422.0	1418.5	1420.2	1427.2
12.5°	1376.4	1381.6	1386.9	1388.8	1397.5	1392.2	1394.0	1406.2	1404.5	1406.2	1413.2
15°	1351.9	1358.9	1364.1	1364.1	1374.6	1369.4	1374.6	1386.9	1383.4	1390.5	1399.2
17.5°	1323.8	1330.8	1337.8	1339.5	1350.1	1346.5	1353.6	1365.9	1365.9	1369.4	1379.9
20°	1297.4	1306.1	1309.6	1315.0	1325.5	1323.8	1327.2	1341.2	1341.2	1346.5	1357.1
22.5°	1262.2	1271.0	1278.1	1283.4	1292.1	1292.1	1297.4	1309.6	1309.6	1313.2	1323.8
25°	1223.6	1234.2	1239.5	1244.8	1253.5	1251.8	1257.0	1267.5	1269.2	1272.9	1283.4
27.5°	1174.5	1183.2	1190.2	1193.9	1206.1	1199.1	1204.4	1216.6	1214.9	1218.4	1227.1
30°	1113.0	1121.9	1128.9	1128.9	1139.4	1139.4	1144.6	1149.9	1149.9	1153.4	1160.5
32.5°	1041.1	1051.6	1051.6	1056.9	1063.9	1056.9	1063.9	1070.9	1067.4	1072.6	1078.0
35°	958.6	963.9	965.6	965.6	970.9	969.1	967.4	972.6	969.1	977.9	983.1
37.5°	858.5	865.5	862.0	865.5	863.8	858.5	858.5	867.2	860.2	862.0	867.2
40°	761.9	761.9	760.1	751.4	753.1	747.9	746.1	747.9	740.9	739.1	746.1
42.5°	661.9	660.1	654.9	642.5	644.2	635.5	628.5	628.5	625.0	623.2	625.0
45°	572.4	567.0	558.2	544.2	540.8	533.8	519.6	516.1	510.9	510.9	512.6
47.5°	489.9	482.8	468.8	453.0	444.1	435.4	421.4	416.1	407.2	403.8	407.2
50°	421.4	409.0	391.5	368.6	359.9	349.4	335.4	326.5	317.8	314.2	312.5
52.5°	358.1	340.6	323.0	295.0	287.9	277.4	258.1	249.2	240.5	233.5	233.5
55°	303.8	287.9	263.4	237.0	226.5	216.0	196.6	184.4	175.5	172.0	168.5
57.5°	254.6	237.0	214.1	186.1	175.5	165.0	145.8	133.4	124.6	119.4	115.9
60°	214.1	194.9	172.0	147.5	135.1	124.6	105.4	93.0	84.2	79.0	75.5
62.5°	175.5	159.8	137.0	114.1	103.6	93.0	77.2	65.0	56.1	52.6	47.4
65°	147.5	131.6	110.6	91.2	82.5	72.0	57.9	47.4	40.4	35.1	31.6
67.5°	119.4	107.1	89.5	72.0	63.2	56.1	43.9	35.1	28.1	24.6	22.9
70°	94.8	82.5	68.5	54.4	49.1	42.1	33.4	24.6	21.1	17.5	15.8
72.5°	70.2	61.5	50.9	40.4	35.1	31.6	22.9	19.2	14.0	12.2	10.5
75°	50.9	43.9	36.9	28.1	24.6	22.9	17.5	12.2	10.5	8.8	7.0
77.5°	35.1	31.6	24.6	19.2	17.5	15.8	12.2	8.8	7.0	5.2	5.2
80°	22.9	19.2	15.8	12.2	12.2	10.5	7.0	5.2	5.2	3.5	3.5
82.5°	14.0	12.2	10.5	8.8	7.0	7.0	5.2	3.5	3.5	1.8	1.8
85°	8.8	7.0	5.2	5.2	3.5	3.5	3.5	1.8	1.8	1.8	1.8
87.5°	3.5	3.5	3.5	1.8	1.8	1.8	1.8	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6
2.5°	1451.9	1451.9	1455.4	1450.1	1453.6	1453.6	1457.1	1450.1	1453.6	1455.4	1458.9
5°	1444.9	1446.6	1450.1	1448.4	1450.1	1450.1	1453.6	1444.9	1451.9	1451.9	1457.1
7.5°	1437.9	1437.9	1441.4	1439.6	1443.1	1444.9	1448.4	1441.4	1448.4	1448.4	1453.6
10°	1429.1	1429.1	1434.4	1432.6	1437.9	1439.6	1444.9	1437.9	1444.9	1446.6	1451.9
12.5°	1416.8	1418.5	1423.8	1423.8	1429.1	1432.6	1437.9	1434.4	1443.1	1444.9	1451.9
15°	1402.8	1406.2	1413.2	1411.5	1416.8	1422.0	1429.1	1423.8	1436.1	1439.6	1446.6
17.5°	1385.1	1388.8	1394.0	1394.0	1399.2	1402.8	1411.5	1408.0	1418.5	1420.2	1429.1
20°	1358.9	1364.1	1371.1	1369.4	1374.6	1378.1	1385.1	1381.6	1392.2	1395.8	1404.5
22.5°	1327.2	1330.8	1336.0	1336.0	1341.2	1344.8	1351.9	1346.5	1357.1	1358.9	1365.9
25°	1285.1	1288.6	1292.1	1293.9	1299.1	1300.9	1304.4	1300.9	1309.6	1311.5	1320.2
27.5°	1230.6	1232.5	1237.8	1237.8	1241.2	1243.0	1248.2	1241.2	1253.5	1253.5	1258.8
30°	1165.8	1164.0	1171.0	1167.5	1171.0	1171.0	1176.2	1172.8	1181.5	1178.0	1183.2
32.5°	1079.8	1083.2	1083.2	1079.8	1086.8	1085.0	1085.0	1081.5	1086.8	1088.5	1092.0
35°	979.6	984.9	984.9	986.6	988.4	983.1	984.9	974.4	983.1	984.9	986.6
37.5°	870.8	865.5	869.0	863.8	872.5	862.0	862.0	855.0	862.0	862.0	863.8
40°	746.1	744.4	747.9	744.4	742.6	740.9	737.4	732.1	739.1	735.6	740.9
42.5°	628.5	626.8	626.8	623.2	621.5	621.5	618.0	614.5	612.8	612.8	621.5
45°	507.4	510.9	507.4	505.6	509.1	505.6	507.4	500.4	503.9	500.4	503.9
47.5°	405.5	407.2	403.8	400.2	405.5	400.2	400.2	395.0	402.0	402.0	398.5
50°	314.2	312.5	309.0	312.5	310.8	310.8	310.8	305.5	309.0	303.8	307.2
52.5°	231.8	230.0	230.0	228.2	230.0	228.2	228.2	226.5	226.5	224.8	226.5
55°	168.5	166.8	163.2	163.2	163.2	165.0	163.2	161.5	161.5	159.8	161.5
57.5°	114.1	110.6	110.6	110.6	110.6	108.9	108.9	107.1	108.9	107.1	108.9
60°	73.8	73.8	70.2	70.2	70.2	70.2	70.2	68.5	70.2	70.2	70.2
62.5°	45.6	45.6	43.9	42.1	43.9	42.1	42.1	42.1	43.9	42.1	43.9
65°	29.9	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
67.5°	21.1	19.2	19.2	19.2	19.2	19.2	19.2	17.5	19.2	19.2	19.2
70°	14.0	14.0	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
72.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	7.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
77.5°	5.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	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	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P252261

CATALOG NUMBER: LE\_6B20D010 EC6B10208040 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6	1453.6
2.5°	1453.6	1455.4	1451.9	1453.6	1450.1	1453.6	1455.4	1458.9
5°	1450.1	1451.9	1448.4	1451.9	1448.4	1451.9	1453.6	1457.1
7.5°	1446.6	1450.1	1446.6	1450.1	1446.6	1450.1	1451.9	1455.4
10°	1446.6	1451.9	1448.4	1453.6	1448.4	1451.9	1455.4	1457.1
12.5°	1446.6	1451.9	1450.1	1453.6	1451.9	1455.4	1458.9	1462.4
15°	1443.1	1448.4	1444.9	1450.1	1448.4	1450.1	1457.1	1457.1
17.5°	1423.8	1429.1	1429.1	1432.6	1432.6	1437.9	1441.4	1444.9
20°	1399.2	1404.5	1402.8	1408.0	1408.0	1413.2	1416.8	1420.2
22.5°	1362.4	1369.4	1367.6	1372.9	1371.1	1374.6	1381.6	1379.9
25°	1315.0	1323.8	1322.0	1325.5	1323.8	1323.8	1327.2	1329.0
27.5°	1257.0	1262.2	1260.5	1264.0	1260.5	1264.0	1267.5	1269.2
30°	1181.5	1185.0	1183.2	1185.0	1183.2	1186.8	1188.5	1192.0
32.5°	1090.2	1095.5	1090.2	1093.8	1092.0	1092.0	1099.0	1095.5
35°	981.4	983.1	984.9	984.9	981.4	983.1	986.6	986.6
37.5°	860.2	869.0	858.5	863.8	862.0	862.0	862.0	867.2
40°	733.9	735.6	732.1	732.1	732.1	730.4	737.4	735.6
42.5°	614.5	616.2	614.5	609.2	611.0	611.0	616.2	609.2
45°	498.6	502.1	500.4	500.4	496.9	496.9	498.6	495.1
47.5°	395.0	398.5	393.2	395.0	391.5	395.0	393.2	396.8
50°	300.2	303.8	302.0	303.8	303.8	300.2	305.5	298.5
52.5°	224.8	226.5	224.8	223.0	221.2	221.2	224.8	223.0
55°	159.8	158.0	158.0	158.0	159.8	159.8	158.0	156.2
57.5°	107.1	107.1	105.4	105.4	107.1	103.6	105.4	103.6
60°	68.5	68.5	68.5	68.5	66.8	68.5	68.5	68.5
62.5°	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
65°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
67.5°	17.5	19.2	19.2	19.2	17.5	17.5	17.5	17.5
70°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
72.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
75°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	1.8	1.8	1.8	1.8	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)