

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: P252262

Luminaire Tested: **LE\_6B20D010 EC6B10208050 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252262  
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 EC6B10208050 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2437.5 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

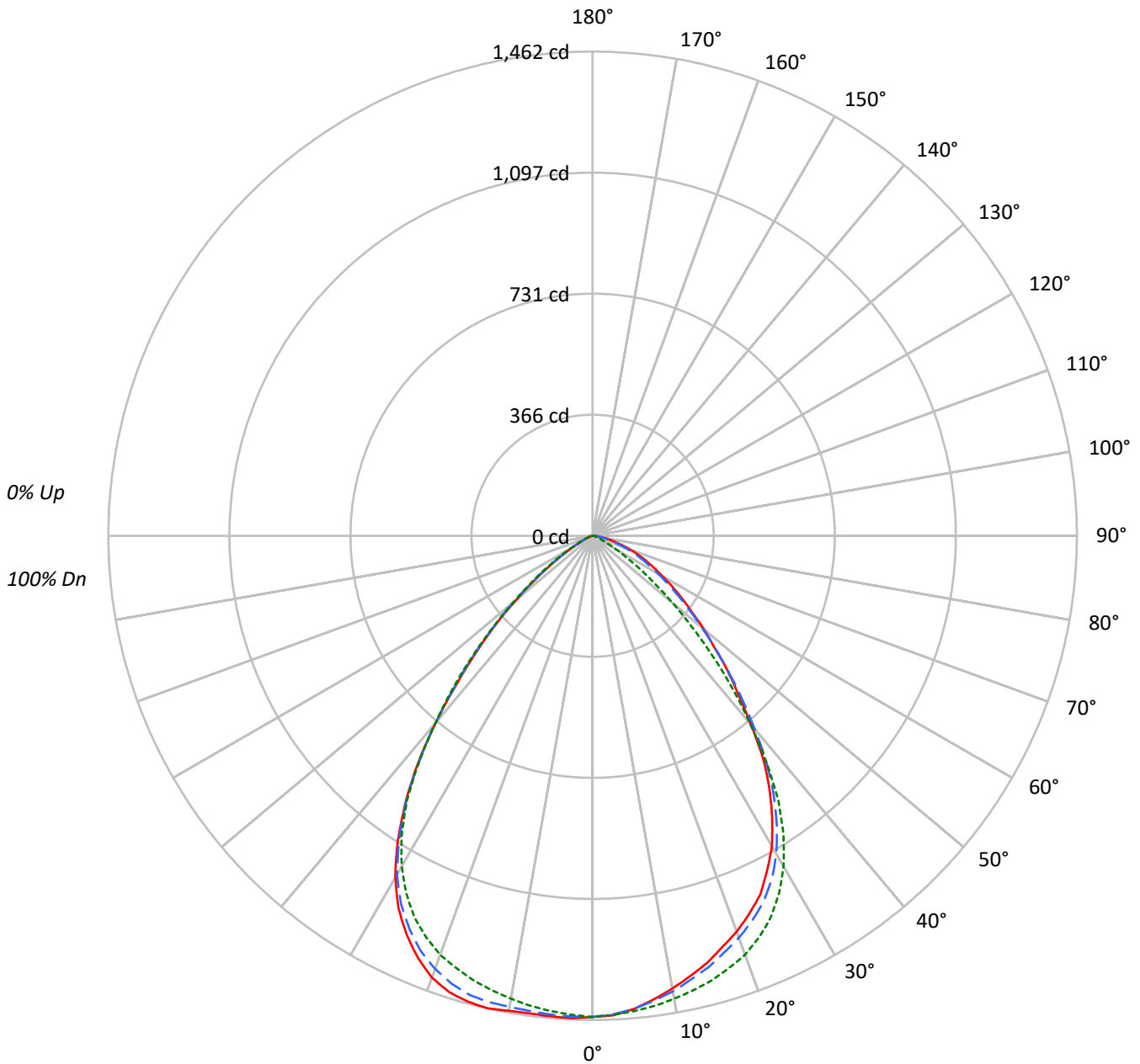
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

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

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

	0°	90°	180°
0°	94788	94788	94788
5°	93886	94345	95379
10°	91951	94038	96482
15°	90196	93870	98368
20°	88319	93443	98553
25°	86152	91572	95625
30°	81556	86852	89760
35°	74069	77844	78537
40°	63210	62920	62614
45°	53098	47110	45662
50°	44344	31880	30266
55°	37319	19564	17755
60°	31590	10308	8925
65°	27355	5418	4338
70°	22776	3338	2327
75°	16788	2218	1311
80°	13187	1315	676
85°	10480	1347	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.9	5.6
10°-20°	392.1	16.1
20°-30°	578.9	23.8
30°-40°	596.7	24.5
40°-50°	412.1	16.9
50°-60°	203.1	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°	1107.9	45.5
0°-40°	1704.6	69.9
0°-60°	2319.8	95.2
0°-90°	2437.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2437.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1453	1453	1453	1453	1453	
5°	1434	1434	1441	1451	1456	135
15°	1335	1349	1390	1435	1456	376
25°	1197	1220	1272	1309	1328	547
35°	930	953	977	983	986	576
45°	576	579	511	504	495	445
55°	328	316	172	161	156	296
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°	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9
2.5°	1449.4	1444.1	1447.6	1440.6	1449.4	1440.6	1442.4	1444.1	1442.4	1444.1	1445.9
5°	1433.6	1428.4	1433.6	1424.9	1433.6	1428.4	1428.4	1430.1	1430.1	1431.9	1433.6
7.5°	1412.5	1407.2	1412.5	1403.8	1414.2	1409.0	1409.0	1412.5	1410.8	1412.5	1416.0
10°	1388.0	1381.0	1386.2	1381.0	1391.5	1384.5	1388.0	1388.0	1388.0	1393.2	1396.8
12.5°	1361.6	1354.6	1361.6	1352.9	1363.4	1358.1	1359.9	1365.1	1366.9	1370.4	1372.1
15°	1335.4	1326.5	1330.1	1324.8	1335.4	1330.1	1331.9	1338.9	1338.9	1344.1	1349.4
17.5°	1302.0	1295.0	1302.0	1295.0	1303.8	1300.2	1303.8	1309.0	1309.0	1314.2	1319.5
20°	1272.1	1265.1	1270.4	1265.1	1275.6	1270.4	1272.1	1279.1	1281.0	1286.2	1291.5
22.5°	1235.4	1230.0	1233.5	1228.2	1238.9	1235.4	1237.1	1244.1	1245.9	1249.4	1258.1
25°	1196.8	1186.1	1191.5	1188.0	1198.5	1193.2	1196.8	1203.8	1207.2	1212.5	1219.5
27.5°	1140.5	1135.2	1138.8	1138.8	1147.6	1142.4	1144.1	1151.1	1156.4	1161.6	1170.4
30°	1082.6	1073.9	1077.4	1079.1	1086.1	1082.6	1086.1	1093.1	1095.0	1102.0	1109.0
32.5°	1009.0	1005.5	1012.5	1009.0	1012.5	1012.5	1014.2	1019.5	1023.0	1026.5	1035.2
35°	930.0	923.0	930.0	926.5	935.2	930.0	935.2	940.5	940.5	947.5	952.8
37.5°	844.0	835.2	838.8	838.8	842.2	840.5	840.5	849.2	851.0	856.2	861.6
40°	742.2	738.8	745.8	744.0	745.8	745.8	747.5	752.8	756.2	758.0	759.8
42.5°	651.0	652.8	654.5	654.5	654.5	654.5	654.5	661.5	659.8	665.0	666.8
45°	575.5	568.5	572.0	570.2	575.5	570.2	575.5	580.8	577.2	582.6	579.0
47.5°	498.4	498.4	498.4	496.6	500.1	498.4	501.9	503.6	503.6	503.6	501.9
50°	436.9	431.6	433.4	433.4	435.1	433.4	436.9	438.6	438.6	435.1	428.1
52.5°	377.2	375.5	375.5	379.0	379.0	377.2	377.2	377.2	377.2	372.0	368.5
55°	328.1	324.6	326.4	326.4	326.4	326.4	328.1	326.4	326.4	321.1	315.9
57.5°	284.2	280.8	280.8	280.8	282.5	280.8	280.8	280.8	279.0	273.8	266.8
60°	242.1	240.4	242.1	242.1	243.9	242.1	242.1	242.1	238.6	233.4	226.4
62.5°	207.0	207.0	207.0	208.8	208.8	207.0	207.0	205.2	203.5	196.5	189.5
65°	177.2	175.5	177.2	177.2	179.0	179.0	177.2	175.5	173.8	166.8	159.6
67.5°	147.4	145.6	147.4	147.4	149.1	147.4	147.4	147.4	142.1	138.6	131.6
70°	119.4	117.6	117.6	117.6	119.4	115.8	117.6	117.6	114.0	108.8	101.8
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°	66.6	66.6	68.4	68.4	66.6	66.6	66.6	64.9	63.1	59.6	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	22.8	22.8	22.8	22.8	22.8	22.8	21.0	21.0	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°	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9
2.5°	1445.9	1445.9	1449.4	1444.1	1452.9	1447.6	1445.9	1454.6	1449.4	1447.6	1451.1
5°	1433.6	1435.4	1437.1	1433.6	1442.4	1437.1	1437.1	1445.9	1442.4	1440.6	1445.9
7.5°	1417.8	1419.5	1423.1	1421.4	1428.4	1424.9	1426.6	1435.4	1431.9	1431.9	1437.1
10°	1398.5	1402.0	1405.5	1405.5	1414.2	1410.8	1410.8	1421.4	1417.8	1419.5	1426.6
12.5°	1375.8	1381.0	1386.2	1388.0	1396.8	1391.5	1393.2	1405.5	1403.8	1405.5	1412.5
15°	1351.1	1358.1	1363.4	1363.4	1374.0	1368.6	1374.0	1386.2	1382.8	1389.8	1398.5
17.5°	1323.0	1330.1	1337.1	1338.9	1349.4	1345.9	1352.9	1365.1	1365.1	1368.6	1379.2
20°	1296.8	1305.5	1309.0	1314.2	1324.8	1323.0	1326.5	1340.6	1340.6	1345.9	1356.4
22.5°	1261.6	1270.4	1277.4	1282.8	1291.5	1291.5	1296.8	1309.0	1309.0	1312.5	1323.0
25°	1223.0	1233.5	1238.9	1244.1	1252.9	1251.1	1256.4	1266.9	1268.6	1272.1	1282.8
27.5°	1173.9	1182.6	1189.8	1193.2	1205.5	1198.5	1203.8	1216.0	1214.2	1217.8	1226.5
30°	1112.5	1121.2	1128.2	1128.2	1138.8	1138.8	1144.1	1149.4	1149.4	1152.9	1159.9
32.5°	1040.5	1051.1	1051.1	1056.4	1063.4	1056.4	1063.4	1070.4	1066.9	1072.1	1077.4
35°	958.1	963.4	965.1	965.1	970.4	968.6	966.9	972.1	968.6	977.4	982.6
37.5°	858.0	865.1	861.6	865.1	863.4	858.0	858.0	866.9	859.8	861.6	866.9
40°	761.5	761.5	759.8	751.0	752.8	747.5	745.8	747.5	740.5	738.8	745.8
42.5°	661.5	659.8	654.5	642.2	644.0	635.2	628.1	628.1	624.6	622.9	624.6
45°	572.0	566.8	558.0	544.0	540.5	533.4	519.4	515.9	510.6	510.6	512.4
47.5°	489.6	482.5	468.5	452.8	444.0	435.1	421.1	415.9	407.1	403.6	407.1
50°	421.1	408.9	391.2	368.5	359.8	349.1	335.1	326.4	317.6	314.1	312.4
52.5°	358.0	340.4	322.9	294.8	287.8	277.2	258.0	249.1	240.4	233.4	233.4
55°	303.6	287.8	263.2	236.9	226.4	215.9	196.5	184.2	175.5	172.0	168.5
57.5°	254.4	236.9	214.1	186.0	175.5	165.0	145.6	133.4	124.6	119.4	115.8
60°	214.1	194.8	172.0	147.4	135.1	124.6	105.2	93.0	84.2	79.0	75.5
62.5°	175.5	159.6	136.9	114.0	103.5	93.0	77.2	64.9	56.1	52.6	47.4
65°	147.4	131.6	110.5	91.2	82.5	72.0	57.9	47.4	40.4	35.1	31.6
67.5°	119.4	107.0	89.5	72.0	63.1	56.1	43.9	35.1	28.1	24.6	22.8
70°	94.8	82.5	68.4	54.4	49.1	42.1	33.4	24.6	21.0	17.5	15.8
72.5°	70.2	61.4	50.9	40.4	35.1	31.6	22.8	19.2	14.0	12.2	10.5
75°	50.9	43.9	36.9	28.1	24.6	22.8	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°	22.8	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°	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9
2.5°	1451.1	1451.1	1454.6	1449.4	1452.9	1452.9	1456.4	1449.4	1452.9	1454.6	1458.1
5°	1444.1	1445.9	1449.4	1447.6	1449.4	1449.4	1452.9	1444.1	1451.1	1451.1	1456.4
7.5°	1437.1	1437.1	1440.6	1438.9	1442.4	1444.1	1447.6	1440.6	1447.6	1447.6	1452.9
10°	1428.4	1428.4	1433.6	1431.9	1437.1	1438.9	1444.1	1437.1	1444.1	1445.9	1451.1
12.5°	1416.0	1417.8	1423.1	1423.1	1428.4	1431.9	1437.1	1433.6	1442.4	1444.1	1451.1
15°	1402.0	1405.5	1412.5	1410.8	1416.0	1421.4	1428.4	1423.1	1435.4	1438.9	1445.9
17.5°	1384.5	1388.0	1393.2	1393.2	1398.5	1402.0	1410.8	1407.2	1417.8	1419.5	1428.4
20°	1358.1	1363.4	1370.4	1368.6	1374.0	1377.5	1384.5	1381.0	1391.5	1395.0	1403.8
22.5°	1326.5	1330.1	1335.4	1335.4	1340.6	1344.1	1351.1	1345.9	1356.4	1358.1	1365.1
25°	1284.5	1288.0	1291.5	1293.2	1298.5	1300.2	1303.8	1300.2	1309.0	1310.8	1319.5
27.5°	1230.0	1231.8	1237.1	1237.1	1240.6	1242.4	1247.6	1240.6	1252.9	1252.9	1258.1
30°	1165.1	1163.4	1170.4	1166.9	1170.4	1170.4	1175.6	1172.1	1180.9	1177.4	1182.6
32.5°	1079.1	1082.6	1082.6	1079.1	1086.1	1084.4	1084.4	1080.9	1086.1	1087.9	1091.4
35°	979.1	984.4	984.4	986.1	987.9	982.6	984.4	973.9	982.6	984.4	986.1
37.5°	870.4	865.1	868.6	863.4	872.1	861.6	861.6	854.5	861.6	861.6	863.4
40°	745.8	744.0	747.5	744.0	742.2	740.5	737.0	731.8	738.8	735.2	740.5
42.5°	628.1	626.4	626.4	622.9	621.1	621.1	617.6	614.1	612.4	612.4	621.1
45°	507.1	510.6	507.1	505.4	508.9	505.4	507.1	500.1	503.6	500.1	503.6
47.5°	405.4	407.1	403.6	400.1	405.4	400.1	400.1	394.8	401.9	401.9	398.4
50°	314.1	312.4	308.9	312.4	310.6	310.6	310.6	305.4	308.9	303.6	307.1
52.5°	231.6	229.9	229.9	228.1	229.9	228.1	228.1	226.4	226.4	224.6	226.4
55°	168.5	166.8	163.2	163.2	163.2	165.0	163.2	161.4	161.4	159.6	161.4
57.5°	114.0	110.5	110.5	110.5	110.5	108.8	108.8	107.0	108.8	107.0	108.8
60°	73.8	73.8	70.2	70.2	70.2	70.2	70.2	68.4	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°	21.0	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: P252262

CATALOG NUMBER: LE\_6B20D010 EC6B10208050 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9	1452.9
2.5°	1452.9	1454.6	1451.1	1452.9	1449.4	1452.9	1454.6	1458.1
5°	1449.4	1451.1	1447.6	1451.1	1447.6	1451.1	1452.9	1456.4
7.5°	1445.9	1449.4	1445.9	1449.4	1445.9	1449.4	1451.1	1454.6
10°	1445.9	1451.1	1447.6	1452.9	1447.6	1451.1	1454.6	1456.4
12.5°	1445.9	1451.1	1449.4	1452.9	1451.1	1454.6	1458.1	1461.6
15°	1442.4	1447.6	1444.1	1449.4	1447.6	1449.4	1456.4	1456.4
17.5°	1423.1	1428.4	1428.4	1431.9	1431.9	1437.1	1440.6	1444.1
20°	1398.5	1403.8	1402.0	1407.2	1407.2	1412.5	1416.0	1419.5
22.5°	1361.6	1368.6	1366.9	1372.1	1370.4	1374.0	1381.0	1379.2
25°	1314.2	1323.0	1321.2	1324.8	1323.0	1323.0	1326.5	1328.4
27.5°	1256.4	1261.6	1259.9	1263.4	1259.9	1263.4	1266.9	1268.6
30°	1180.9	1184.4	1182.6	1184.4	1182.6	1186.1	1188.0	1191.5
32.5°	1089.6	1095.0	1089.6	1093.1	1091.4	1091.4	1098.5	1095.0
35°	980.9	982.6	984.4	984.4	980.9	982.6	986.1	986.1
37.5°	859.8	868.6	858.0	863.4	861.6	861.6	861.6	866.9
40°	733.5	735.2	731.8	731.8	731.8	730.0	737.0	735.2
42.5°	614.1	615.9	614.1	608.9	610.6	610.6	615.9	608.9
45°	498.4	501.9	500.1	500.1	496.6	496.6	498.4	494.9
47.5°	394.8	398.4	393.0	394.8	391.2	394.8	393.0	396.6
50°	300.0	303.6	301.8	303.6	303.6	300.0	305.4	298.2
52.5°	224.6	226.4	224.6	222.9	221.1	221.1	224.6	222.9
55°	159.6	157.9	157.9	157.9	159.6	159.6	157.9	156.1
57.5°	107.0	107.0	105.2	105.2	107.0	103.5	105.2	103.5
60°	68.4	68.4	68.4	68.4	66.6	68.4	68.4	68.4
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)