

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: P252578

Luminaire Tested: **LE\_6B20D010 EC6B10209035 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B20D010 EC6B10209035 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2200.0 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

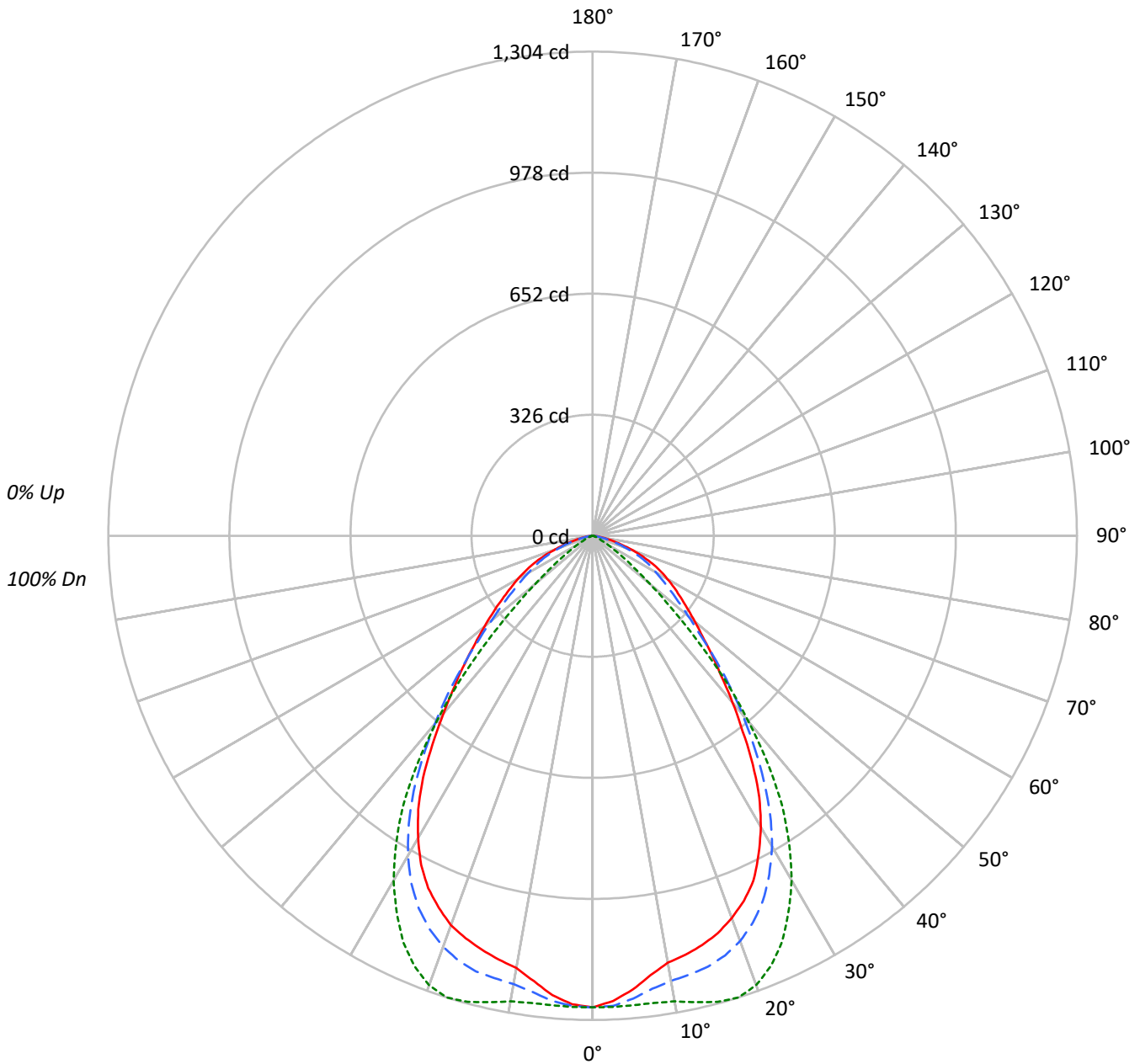
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50																			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

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

	0°	90°	180°
0°	82862	82862	82862
5°	80395	83094	81351
10°	77337	84339	78311
15°	77065	87771	77950
20°	76051	89409	77481
25°	73785	86886	75368
30°	68252	80750	70798
35°	59884	70995	63389
40°	49899	55656	53152
45°	41999	36721	44840
50°	36356	20117	38609
55°	32895	10692	33736
60°	30272	5559	30272
65°	27417	2949	26737
70°	22127	1679	20448
75°	15175	1109	14066
80°	9919	564	8829
85°	6587	1123	5539



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.4	5.4
10°-20°	342.5	15.6
20°-30°	506.0	23.0
30°-40°	511.1	23.2
40°-50°	352.3	16.0
50°-60°	202.3	9.2
60°-70°	117.8	5.4
70°-80°	43.0	2.0
80°-90°	6.6	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°	967.0	44.0
0°-40°	1478.1	67.2
0°-60°	2032.7	92.4
0°-90°	2200.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2200.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1270	1270	1270	1270	1270	
5°	1228	1251	1269	1257	1242	115
15°	1141	1201	1300	1214	1154	321
25°	1025	1085	1207	1107	1047	467
35°	752	803	891	840	796	467
45°	455	461	398	490	486	354
55°	289	254	94	264	297	260
65°	178	150	19	148	173	174
75°	60	48	4	47	56	68
85°	9	4	2	6	7	11
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°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1254.0	1255.5	1257.0	1255.5	1257.0	1262.9	1258.4	1261.4	1261.4	1262.9	1267.2
5°	1227.6	1227.6	1230.5	1229.0	1233.5	1239.4	1234.9	1239.4	1240.8	1243.8	1251.1
7.5°	1193.9	1193.9	1195.2	1195.2	1201.1	1207.0	1204.1	1210.0	1215.9	1221.8	1230.5
10°	1167.4	1170.4	1170.4	1171.8	1177.6	1185.0	1183.5	1190.9	1196.8	1205.5	1217.2
12.5°	1155.6	1157.1	1157.1	1160.0	1165.9	1173.2	1171.8	1179.1	1188.0	1198.2	1210.0
15°	1141.0	1143.9	1142.4	1145.4	1151.2	1158.6	1157.1	1164.5	1174.8	1185.0	1201.1
17.5°	1121.9	1123.4	1124.8	1124.8	1130.6	1136.5	1136.5	1143.9	1155.6	1167.4	1185.0
20°	1095.4	1098.4	1098.4	1099.9	1104.2	1113.0	1111.6	1118.9	1130.6	1142.4	1161.5
22.5°	1064.6	1066.0	1066.0	1067.5	1074.9	1079.2	1080.8	1086.6	1096.9	1110.1	1127.8
25°	1025.0	1026.4	1025.0	1029.4	1032.2	1041.1	1038.1	1045.5	1057.2	1067.5	1085.1
27.5°	967.6	970.6	970.6	972.1	979.4	986.8	986.8	994.1	1004.4	1011.8	1029.4
30°	906.0	910.4	906.0	913.4	916.2	922.1	926.6	931.0	939.8	950.0	966.2
32.5°	835.5	834.0	835.5	838.5	847.2	851.6	854.6	859.0	867.9	876.6	889.9
35°	751.9	754.8	756.2	762.1	762.1	769.5	770.9	773.9	787.1	793.0	803.2
37.5°	663.8	666.6	668.1	671.0	676.9	679.9	684.2	688.6	697.5	707.8	713.6
40°	585.9	585.9	587.4	590.2	594.8	596.1	600.6	606.5	612.4	621.1	627.0
42.5°	512.5	514.0	512.5	515.4	519.9	525.8	524.2	531.5	533.0	538.9	543.2
45°	455.2	455.2	452.2	455.2	455.2	461.1	459.6	462.5	461.1	464.0	461.1
47.5°	400.9	402.4	400.9	402.4	402.4	402.4	403.8	400.9	402.4	398.0	389.1
50°	358.2	359.8	356.9	358.2	356.9	355.4	356.9	352.4	351.0	345.1	336.2
52.5°	321.6	320.1	318.6	318.6	318.6	317.1	315.8	311.2	306.9	301.0	290.8
55°	289.2	287.8	286.4	286.4	283.4	281.9	281.9	277.5	273.1	265.8	254.0
57.5°	259.9	258.5	257.0	257.0	255.5	252.6	252.6	248.1	242.2	233.5	223.2
60°	232.0	232.0	232.0	230.5	230.5	227.6	227.6	223.2	217.4	208.5	196.8
62.5°	207.0	205.6	205.6	205.6	205.6	204.1	202.6	199.8	193.9	185.0	174.8
65°	177.6	177.6	177.6	177.6	176.2	176.2	176.2	171.8	168.9	160.0	149.8
67.5°	145.4	145.4	145.4	145.4	143.9	145.4	145.4	142.4	139.5	130.8	121.9
70°	116.0	114.5	113.1	114.5	113.1	113.1	114.5	111.6	110.1	102.8	94.0
72.5°	85.1	86.6	85.1	85.1	85.1	83.8	85.1	83.8	80.8	74.9	69.0
75°	60.2	61.6	61.6	60.2	60.2	60.2	58.8	58.8	55.8	51.4	48.5
77.5°	41.1	41.1	41.1	41.1	39.6	39.6	39.6	38.1	36.8	33.8	30.9
80°	26.4	26.4	26.4	26.4	25.0	25.0	25.0	23.5	23.5	20.5	17.6
82.5°	16.1	16.1	16.1	16.1	16.1	16.1	14.6	14.6	13.2	11.8	10.2
85°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	7.4	7.4	5.9	4.4
87.5°	2.9	2.9	4.4	4.4	4.4	4.4	4.4	4.4	2.9	2.9	2.9
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°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1264.2	1265.8	1265.8	1265.8	1270.1	1271.6	1267.2	1262.9	1271.6	1270.1	1273.1
5°	1249.6	1254.0	1257.0	1258.4	1262.9	1265.8	1261.4	1259.9	1267.2	1268.8	1270.1
7.5°	1232.0	1239.4	1246.6	1249.6	1255.5	1258.4	1257.0	1257.0	1265.8	1268.8	1268.8
10°	1220.2	1230.5	1239.4	1246.6	1254.0	1258.4	1258.4	1259.9	1270.1	1273.1	1276.0
12.5°	1217.2	1230.5	1242.2	1252.5	1258.4	1265.8	1267.2	1271.6	1281.9	1286.4	1286.4
15°	1210.0	1227.6	1242.2	1255.5	1264.2	1273.1	1276.0	1284.9	1296.6	1299.5	1302.5
17.5°	1196.8	1214.4	1232.0	1248.1	1259.9	1267.2	1276.0	1284.9	1299.5	1304.0	1305.4
20°	1173.2	1193.9	1211.4	1227.6	1239.4	1249.6	1258.4	1268.8	1281.9	1287.8	1289.2
22.5°	1138.0	1158.6	1176.2	1193.9	1205.5	1214.4	1223.1	1234.9	1248.1	1254.0	1254.0
25°	1095.4	1114.5	1133.6	1146.9	1158.6	1168.9	1173.2	1186.5	1199.6	1207.0	1207.0
27.5°	1041.1	1058.8	1076.4	1091.0	1098.4	1107.1	1114.5	1126.2	1136.5	1142.4	1148.2
30°	972.1	989.8	1005.9	1020.5	1029.4	1038.1	1045.5	1054.4	1064.6	1071.9	1073.4
32.5°	897.2	911.9	928.0	942.8	951.5	954.5	961.8	970.6	979.4	985.2	986.8
35°	815.0	825.2	835.5	848.8	857.5	857.5	864.9	870.8	878.1	891.4	888.4
37.5°	718.0	732.8	740.1	744.5	750.4	756.2	757.8	765.0	773.9	776.8	781.2
40°	627.0	631.4	635.9	635.9	641.8	641.8	641.8	643.1	652.0	653.5	659.4
42.5°	536.0	536.0	531.5	527.1	528.6	527.1	519.9	519.9	524.2	530.1	530.1
45°	450.8	440.5	427.2	417.0	409.6	406.8	398.0	398.0	396.5	398.0	403.8
47.5°	378.9	361.2	339.2	318.6	311.2	305.4	292.2	286.4	283.4	284.9	287.8
50°	318.6	299.5	274.6	249.6	236.4	229.1	212.9	202.6	201.1	198.2	204.1
52.5°	274.6	251.1	224.6	195.2	182.1	170.4	152.8	143.9	138.0	138.0	139.5
55°	236.4	211.5	182.1	152.8	139.5	130.8	113.1	101.4	95.5	94.0	98.4
57.5°	204.1	180.6	151.2	121.9	108.6	98.4	80.8	70.5	66.1	63.1	64.6
60°	179.1	155.6	126.2	98.4	86.6	74.9	60.2	48.5	42.6	42.6	44.0
62.5°	155.6	133.6	107.2	80.8	70.5	60.2	44.0	33.8	29.4	27.9	29.4
65°	132.1	111.6	89.6	67.5	57.2	48.5	35.2	26.4	20.5	19.1	20.5
67.5°	107.2	91.0	72.0	54.4	45.5	38.1	26.4	19.1	14.6	13.2	14.6
70°	83.8	69.0	54.4	39.6	33.8	27.9	19.1	14.6	10.2	8.8	10.2
72.5°	60.2	49.9	38.1	27.9	23.5	19.1	13.2	10.2	7.4	5.9	7.4
75°	41.1	33.8	25.0	17.6	14.6	13.2	8.8	5.9	4.4	4.4	4.4
77.5°	26.4	20.5	16.1	11.8	8.8	7.4	4.4	2.9	2.9	2.9	2.9
80°	14.6	11.8	8.8	5.9	4.4	4.4	2.9	2.9	1.5	1.5	1.5
82.5°	8.8	5.9	4.4	2.9	2.9	1.5	1.5	1.5	1.5	1.5	1.5
85°	4.4	2.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87.5°	1.5	1.5	1.5	1.5	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1267.2	1268.8	1264.2	1270.1	1265.8	1271.6	1271.6	1265.8	1267.2	1264.2	1270.1
5°	1264.2	1264.2	1261.4	1265.8	1259.9	1265.8	1264.2	1254.0	1257.0	1251.1	1257.0
7.5°	1264.2	1261.4	1257.0	1261.4	1254.0	1258.4	1252.5	1242.2	1239.4	1232.0	1232.0
10°	1268.8	1264.2	1258.4	1259.9	1252.5	1254.0	1245.2	1230.5	1226.1	1217.2	1214.4
12.5°	1279.0	1274.6	1265.8	1268.8	1258.4	1258.4	1246.6	1229.0	1220.2	1208.5	1205.5
15°	1293.6	1286.4	1276.0	1277.5	1267.2	1261.4	1246.6	1226.1	1214.4	1198.2	1193.9
17.5°	1296.6	1289.2	1276.0	1276.0	1262.9	1255.5	1237.9	1214.4	1199.6	1183.5	1174.8
20°	1280.5	1273.1	1258.4	1257.0	1245.2	1234.9	1215.9	1192.4	1177.6	1160.0	1152.8
22.5°	1246.6	1237.9	1224.6	1223.1	1211.4	1205.5	1185.0	1161.5	1146.9	1129.2	1123.4
25°	1196.8	1192.4	1179.1	1177.6	1167.4	1160.0	1142.4	1120.4	1107.1	1089.5	1083.6
27.5°	1138.0	1133.6	1120.4	1120.4	1108.6	1104.2	1088.1	1067.5	1057.2	1041.1	1033.8
30°	1067.5	1061.6	1054.4	1052.9	1042.6	1038.1	1023.5	1004.4	994.1	980.9	978.0
32.5°	983.9	979.4	975.0	973.5	963.2	958.9	948.6	929.5	920.8	909.0	904.5
35°	886.9	884.0	879.6	878.1	873.8	869.2	859.0	844.4	839.9	831.1	826.8
37.5°	775.4	778.2	775.4	775.4	770.9	772.4	763.6	754.8	750.4	744.5	741.5
40°	654.9	660.8	665.1	665.1	663.8	669.6	668.1	660.8	659.4	656.4	654.9
42.5°	533.0	536.0	544.8	550.6	549.1	563.9	565.4	571.2	575.6	572.6	574.1
45°	405.2	414.1	425.9	431.8	439.0	458.1	468.4	480.1	490.5	496.4	494.9
47.5°	292.2	302.5	315.8	324.5	337.8	361.2	387.6	402.4	417.0	424.4	431.8
50°	211.5	221.8	237.9	251.1	259.9	292.2	320.1	339.2	355.4	365.6	373.0
52.5°	148.2	160.0	177.6	189.4	202.6	233.5	265.8	287.8	305.4	318.6	326.0
55°	102.8	116.0	132.1	143.9	158.6	190.9	221.8	245.2	264.4	276.0	284.9
57.5°	72.0	83.8	99.9	110.1	124.9	155.6	186.5	210.0	229.1	240.9	251.1
60°	48.5	60.2	76.4	86.6	98.4	129.2	157.1	182.1	199.8	211.5	221.8
62.5°	33.8	44.0	60.2	70.5	80.8	107.2	133.6	155.6	173.2	186.5	195.2
65°	26.4	35.2	48.5	57.2	67.5	89.6	111.6	130.8	148.2	161.5	167.4
67.5°	19.1	27.9	38.1	45.5	52.9	72.0	91.0	105.8	121.9	132.1	139.5
70°	13.2	19.1	27.9	33.8	39.6	54.4	69.0	82.2	94.0	101.4	107.2
72.5°	10.2	13.2	19.1	23.5	27.9	38.1	49.9	60.2	69.0	74.9	80.8
75°	5.9	8.8	13.2	16.1	19.1	26.4	33.8	41.1	47.0	51.4	54.4
77.5°	2.9	4.4	7.4	8.8	11.8	16.1	22.0	26.4	30.9	33.8	36.8
80°	2.9	2.9	4.4	4.4	5.9	8.8	11.8	14.6	17.6	20.5	22.0
82.5°	1.5	1.5	2.9	2.9	2.9	4.4	5.9	8.8	10.2	11.8	13.2
85°	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4	5.9	7.4	7.4
87.5°	0.0	0.0	1.5	1.5	1.5	1.5	1.5	2.9	2.9	2.9	4.4
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: P252578

CATALOG NUMBER: LE\_6B20D010 EC6B10209035 6LBDW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1265.8	1268.8	1267.2	1270.1	1265.8	1264.2	1267.2	1262.9
5°	1249.6	1251.1	1249.6	1249.6	1246.6	1243.8	1246.6	1242.2
7.5°	1224.6	1224.6	1220.2	1220.2	1214.4	1211.4	1211.4	1210.0
10°	1204.1	1199.6	1195.2	1196.8	1188.0	1185.0	1183.5	1182.1
12.5°	1193.9	1190.9	1183.5	1183.5	1174.8	1171.8	1170.4	1168.9
15°	1182.1	1176.2	1170.4	1168.9	1161.5	1158.6	1157.1	1154.1
17.5°	1161.5	1157.1	1149.8	1149.8	1142.4	1141.0	1138.0	1136.5
20°	1139.5	1133.6	1127.8	1127.8	1118.9	1118.9	1114.5	1116.0
22.5°	1108.6	1104.2	1098.4	1098.4	1091.0	1089.5	1085.1	1083.6
25°	1071.9	1066.0	1061.6	1060.2	1054.4	1051.4	1049.9	1047.0
27.5°	1023.5	1019.1	1014.6	1011.8	1004.4	1002.9	998.5	1000.0
30°	963.2	960.4	958.9	955.9	947.1	944.1	944.1	939.8
32.5°	897.2	892.8	889.9	885.5	878.1	876.6	872.2	873.8
35°	816.4	810.5	806.1	807.6	798.8	797.4	794.4	795.9
37.5°	732.8	726.9	721.0	719.5	712.1	712.1	707.8	707.8
40°	646.1	640.2	637.2	637.2	628.5	630.0	625.5	624.1
42.5°	568.2	562.4	560.9	559.5	555.0	553.6	549.1	550.6
45°	494.9	493.4	493.4	490.5	486.0	484.6	486.0	486.0
47.5°	430.2	431.8	430.2	430.2	427.2	430.2	427.2	428.8
50°	375.9	378.9	378.9	378.9	377.4	378.9	378.9	380.4
52.5°	330.4	334.8	333.4	334.8	333.4	336.2	334.8	336.2
55°	290.8	293.6	295.1	296.6	296.6	296.6	296.6	296.6
57.5°	254.0	258.5	259.9	261.4	261.4	264.4	261.4	261.4
60°	224.6	229.1	230.5	232.0	232.0	233.5	230.5	232.0
62.5°	198.2	202.6	202.6	204.1	204.1	204.1	201.1	202.6
65°	171.8	173.2	174.8	174.8	173.2	173.2	171.8	173.2
67.5°	142.4	143.9	142.4	142.4	141.0	141.0	138.0	139.5
70°	110.1	110.1	111.6	110.1	108.6	110.1	108.6	107.2
72.5°	82.2	82.2	82.2	80.8	80.8	79.2	80.8	80.8
75°	55.8	55.8	57.2	57.2	57.2	57.2	55.8	55.8
77.5°	36.8	36.8	36.8	36.8	38.1	36.8	36.8	36.8
80°	23.5	23.5	25.0	25.0	23.5	23.5	23.5	23.5
82.5°	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
85°	8.8	8.8	8.8	8.8	7.4	7.4	7.4	7.4
87.5°	4.4	4.4	4.4	4.4	4.4	4.4	2.9	2.9
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)