

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: P252577

Luminaire Tested: **LE_6B20D010 EC6B10209030 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252577
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 EC6B10209030 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2168.8 lumens
Efficiency: N/A
Efficacy: 104.3 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

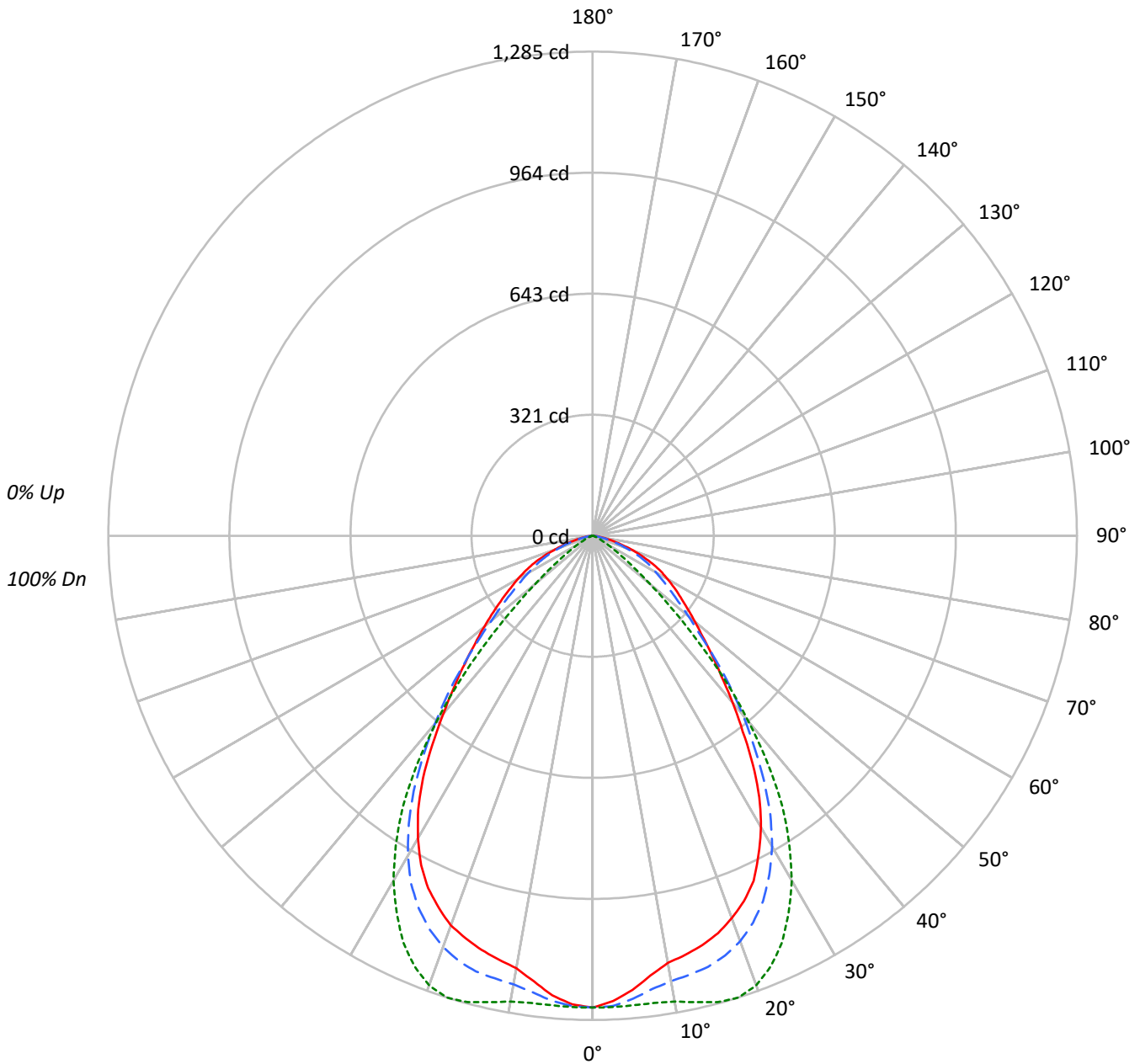
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	81688	81688	81688
5°	79249	81902	80199
10°	76237	83140	77191
15°	75971	86528	76849
20°	74975	88138	76377
25°	72734	85655	74296
30°	67280	79612	69789
35°	59024	69975	62489
40°	49192	54855	52394
45°	41408	36186	44204
50°	35849	19832	38051
55°	32428	10533	33259
60°	29854	5480	29854
65°	27031	2918	26367
70°	21822	1640	20143
75°	14973	1109	13864
80°	9768	564	8679
85°	6438	1123	5390



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	5.4
10°-20°	337.6	15.6
20°-30°	498.8	23.0
30°-40°	503.9	23.2
40°-50°	347.3	16.0
50°-60°	199.5	9.2
60°-70°	116.1	5.4
70°-80°	42.3	2.0
80°-90°	6.5	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°	953.2	44.0
0°-40°	1457.1	67.2
0°-60°	2003.8	92.4
0°-90°	2168.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2168.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1252	1252	1252	1252	1252	
5°	1210	1233	1251	1239	1225	114
15°	1125	1184	1281	1197	1138	317
25°	1010	1070	1190	1092	1032	460
35°	741	792	879	828	785	460
45°	449	454	392	484	479	349
55°	285	250	93	260	292	257
65°	175	148	19	146	171	171
75°	59	48	4	46	55	67
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°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1236.2	1237.6	1239.1	1237.6	1239.1	1244.9	1240.5	1243.5	1243.5	1244.9	1249.2
5°	1210.1	1210.1	1213.0	1211.6	1216.0	1221.8	1217.4	1221.8	1223.1	1226.1	1233.2
7.5°	1176.9	1176.9	1178.2	1178.2	1184.1	1189.9	1187.0	1192.8	1198.6	1204.4	1213.0
10°	1150.8	1153.8	1153.8	1155.1	1160.9	1168.1	1166.8	1174.0	1179.8	1188.4	1200.0
12.5°	1139.2	1140.6	1140.6	1143.5	1149.4	1156.6	1155.1	1162.4	1171.1	1181.2	1192.8
15°	1124.8	1127.6	1126.2	1129.1	1134.9	1142.1	1140.6	1147.9	1158.0	1168.1	1184.1
17.5°	1105.9	1107.4	1108.9	1108.9	1114.6	1120.4	1120.4	1127.6	1139.2	1150.8	1168.1
20°	1079.9	1082.8	1082.8	1084.2	1088.5	1097.2	1095.8	1103.0	1114.6	1126.2	1145.0
22.5°	1049.5	1050.9	1050.9	1052.4	1059.6	1064.0	1065.4	1071.1	1081.4	1094.4	1111.8
25°	1010.4	1011.9	1010.4	1014.8	1017.6	1026.2	1023.4	1030.6	1042.2	1052.4	1069.8
27.5°	953.9	956.9	956.9	958.2	965.5	972.8	972.8	980.0	990.1	997.4	1014.8
30°	893.1	897.5	893.1	900.4	903.2	909.0	913.4	917.8	926.4	936.5	952.5
32.5°	823.6	822.2	823.6	826.5	835.2	839.6	842.5	846.9	855.5	864.1	877.2
35°	741.1	744.0	745.5	751.2	751.2	758.5	760.0	762.9	775.9	781.6	791.8
37.5°	654.2	657.1	658.6	661.5	667.4	670.2	674.5	678.9	687.6	697.8	703.5
40°	577.6	577.6	579.0	581.9	586.2	587.8	592.0	597.9	603.6	612.2	618.1
42.5°	505.2	506.6	505.2	508.1	512.4	518.2	516.8	524.0	525.5	531.2	535.6
45°	448.8	448.8	445.9	448.8	448.8	454.5	453.1	456.0	454.5	457.4	454.5
47.5°	395.1	396.6	395.1	396.6	396.6	396.6	398.1	395.1	396.6	392.2	383.6
50°	353.2	354.6	351.8	353.2	351.8	350.2	351.8	347.4	346.0	340.1	331.5
52.5°	317.0	315.6	314.1	314.1	314.1	312.6	311.2	306.9	302.5	296.8	286.6
55°	285.1	283.8	282.2	282.2	279.4	277.9	277.9	273.6	269.2	262.0	250.4
57.5°	256.2	254.8	253.4	253.4	251.9	249.0	249.0	244.6	238.9	230.1	220.0
60°	228.8	228.8	228.8	227.2	227.2	224.4	224.4	220.0	214.2	205.5	194.0
62.5°	204.1	202.6	202.6	202.6	202.6	201.2	199.8	196.9	191.1	182.4	172.2
65°	175.1	175.1	175.1	175.1	173.8	173.8	173.8	169.4	166.5	157.8	147.6
67.5°	143.2	143.2	143.2	143.2	141.9	143.2	143.2	140.4	137.5	128.9	120.1
70°	114.4	112.9	111.5	112.9	111.5	111.5	112.9	110.0	108.6	101.4	92.6
72.5°	84.0	85.4	84.0	84.0	84.0	82.5	84.0	82.5	79.6	73.9	68.0
75°	59.4	60.8	60.8	59.4	59.4	59.4	57.9	57.9	55.0	50.6	47.8
77.5°	40.5	40.5	40.5	40.5	39.1	39.1	39.1	37.6	36.2	33.2	30.4
80°	26.0	26.0	26.0	26.0	24.6	24.6	24.6	23.1	23.1	20.2	17.4
82.5°	15.9	15.9	15.9	15.9	15.9	15.9	14.5	14.5	13.0	11.6	10.1
85°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	7.2	7.2	5.8	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°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1246.4	1247.8	1247.8	1247.8	1252.1	1253.6	1249.2	1244.9	1253.6	1252.1	1255.0
5°	1231.9	1236.2	1239.1	1240.5	1244.9	1247.8	1243.5	1242.0	1249.2	1250.6	1252.1
7.5°	1214.5	1221.8	1229.0	1231.9	1237.6	1240.5	1239.1	1239.1	1247.8	1250.6	1250.6
10°	1202.9	1213.0	1221.8	1229.0	1236.2	1240.5	1240.5	1242.0	1252.1	1255.0	1257.9
12.5°	1200.0	1213.0	1224.6	1234.8	1240.5	1247.8	1249.2	1253.6	1263.8	1268.0	1268.0
15°	1192.8	1210.1	1224.6	1237.6	1246.4	1255.0	1257.9	1266.6	1278.1	1281.1	1284.0
17.5°	1179.8	1197.1	1214.5	1230.4	1242.0	1249.2	1257.9	1266.6	1281.1	1285.4	1286.9
20°	1156.6	1176.9	1194.2	1210.1	1221.8	1231.9	1240.5	1250.6	1263.8	1269.5	1271.0
22.5°	1121.9	1142.1	1159.5	1176.9	1188.4	1197.1	1205.8	1217.4	1230.4	1236.2	1236.2
25°	1079.9	1098.8	1117.5	1130.5	1142.1	1152.2	1156.6	1169.6	1182.6	1189.9	1189.9
27.5°	1026.2	1043.6	1061.0	1075.5	1082.8	1091.5	1098.8	1110.2	1120.4	1126.2	1132.0
30°	958.2	975.6	991.6	1006.0	1014.8	1023.4	1030.6	1039.4	1049.5	1056.8	1058.1
32.5°	884.5	898.9	914.9	929.4	938.0	940.9	948.1	956.9	965.5	971.2	972.8
35°	803.4	813.5	823.6	836.6	845.4	845.4	852.6	858.4	865.6	878.6	875.8
37.5°	707.9	722.4	729.6	733.9	739.8	745.5	746.9	754.1	762.9	765.8	770.1
40°	618.1	622.5	626.8	626.8	632.6	632.6	632.6	634.0	642.8	644.1	650.0
42.5°	528.4	528.4	524.0	519.6	521.1	519.6	512.4	512.4	516.8	522.6	522.6
45°	444.4	434.2	421.2	411.1	403.9	401.0	392.2	392.2	390.9	392.2	398.1
47.5°	373.5	356.1	334.4	314.1	306.9	301.1	288.0	282.2	279.4	280.9	283.8
50°	314.1	295.2	270.8	246.1	233.0	225.9	209.9	199.8	198.4	195.4	201.2
52.5°	270.8	247.5	221.5	192.5	179.5	167.9	150.5	141.9	136.1	136.1	137.5
55°	233.0	208.5	179.5	150.5	137.5	128.9	111.5	99.9	94.1	92.6	97.0
57.5°	201.2	178.0	149.1	120.1	107.1	97.0	79.6	69.5	65.1	62.2	63.8
60°	176.6	153.5	124.5	97.0	85.4	73.9	59.4	47.8	42.0	42.0	43.4
62.5°	153.5	131.8	105.6	79.6	69.5	59.4	43.4	33.2	29.0	27.5	29.0
65°	130.2	110.0	88.2	66.6	56.5	47.8	34.8	26.0	20.2	18.9	20.2
67.5°	105.6	89.8	70.9	53.5	44.9	37.6	26.0	18.9	14.5	13.0	14.5
70°	82.5	68.0	53.5	39.1	33.2	27.5	18.9	14.5	10.1	8.6	10.1
72.5°	59.4	49.2	37.6	27.5	23.1	18.9	13.0	10.1	7.2	5.8	7.2
75°	40.5	33.2	24.6	17.4	14.5	13.0	8.6	5.8	4.4	4.4	4.4
77.5°	26.0	20.2	15.9	11.6	8.6	7.2	4.4	2.9	2.9	2.9	2.9
80°	14.5	11.6	8.6	5.8	4.4	4.4	2.9	2.9	1.5	1.5	1.5
82.5°	8.6	5.8	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°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1249.2	1250.6	1246.4	1252.1	1247.8	1253.6	1253.6	1247.8	1249.2	1246.4	1252.1
5°	1246.4	1246.4	1243.5	1247.8	1242.0	1247.8	1246.4	1236.2	1239.1	1233.2	1239.1
7.5°	1246.4	1243.5	1239.1	1243.5	1236.2	1240.5	1234.8	1224.6	1221.8	1214.5	1214.5
10°	1250.6	1246.4	1240.5	1242.0	1234.8	1236.2	1227.5	1213.0	1208.8	1200.0	1197.1
12.5°	1260.9	1256.5	1247.8	1250.6	1240.5	1240.5	1229.0	1211.6	1202.9	1191.4	1188.4
15°	1275.2	1268.0	1257.9	1259.4	1249.2	1243.5	1229.0	1208.8	1197.1	1181.2	1176.9
17.5°	1278.1	1271.0	1257.9	1257.9	1244.9	1237.6	1220.2	1197.1	1182.6	1166.8	1158.0
20°	1262.2	1255.0	1240.5	1239.1	1227.5	1217.4	1198.6	1175.4	1160.9	1143.5	1136.4
22.5°	1229.0	1220.2	1207.2	1205.8	1194.2	1188.4	1168.1	1145.0	1130.5	1113.1	1107.4
25°	1179.8	1175.4	1162.4	1160.9	1150.8	1143.5	1126.2	1104.5	1091.5	1074.1	1068.2
27.5°	1121.9	1117.5	1104.5	1104.5	1092.9	1088.5	1072.6	1052.4	1042.2	1026.2	1019.1
30°	1052.4	1046.6	1039.4	1037.9	1027.8	1023.4	1009.0	990.1	980.0	967.0	964.1
32.5°	969.9	965.5	961.1	959.8	949.6	945.2	935.1	916.2	907.6	896.0	891.8
35°	874.4	871.4	867.1	865.6	861.2	857.0	846.9	832.4	828.0	819.2	815.0
37.5°	764.2	767.2	764.2	764.2	760.0	761.4	752.8	744.0	739.8	733.9	731.0
40°	645.6	651.4	655.8	655.8	654.2	660.1	658.6	651.4	650.0	647.0	645.6
42.5°	525.5	528.4	537.0	542.9	541.4	555.9	557.2	563.1	567.5	564.5	566.0
45°	399.5	408.2	419.8	425.6	432.9	451.6	461.8	473.4	483.5	489.2	487.9
47.5°	288.0	298.2	311.2	319.9	332.9	356.1	382.1	396.6	411.1	418.4	425.6
50°	208.5	218.6	234.5	247.5	256.2	288.0	315.6	334.4	350.2	360.5	367.6
52.5°	146.2	157.8	175.1	186.8	199.8	230.1	262.0	283.8	301.1	314.1	321.4
55°	101.4	114.4	130.2	141.9	156.4	188.1	218.6	241.8	260.5	272.1	280.9
57.5°	70.9	82.5	98.4	108.6	123.0	153.5	183.9	207.0	225.9	237.4	247.5
60°	47.8	59.4	75.2	85.4	97.0	127.4	154.9	179.5	196.9	208.5	218.6
62.5°	33.2	43.4	59.4	69.5	79.6	105.6	131.8	153.5	170.8	183.9	192.5
65°	26.0	34.8	47.8	56.5	66.6	88.2	110.0	128.9	146.2	159.2	165.0
67.5°	18.9	27.5	37.6	44.9	52.1	70.9	89.8	104.2	120.1	130.2	137.5
70°	13.0	18.9	27.5	33.2	39.1	53.5	68.0	81.1	92.6	99.9	105.6
72.5°	10.1	13.0	18.9	23.1	27.5	37.6	49.2	59.4	68.0	73.9	79.6
75°	5.8	8.6	13.0	15.9	18.9	26.0	33.2	40.5	46.4	50.6	53.5
77.5°	2.9	4.4	7.2	8.6	11.6	15.9	21.8	26.0	30.4	33.2	36.2
80°	2.9	2.9	4.4	4.4	5.8	8.6	11.6	14.5	17.4	20.2	21.8
82.5°	1.5	1.5	2.9	2.9	2.9	4.4	5.8	8.6	10.1	11.6	13.0
85°	1.5	1.5	1.5	1.5	1.5	2.9	2.9	4.4	5.8	7.2	7.2
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: P252577

CATALOG NUMBER: LE_6B20D010 EC6B10209030 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1	1252.1
2.5°	1247.8	1250.6	1249.2	1252.1	1247.8	1246.4	1249.2	1244.9
5°	1231.9	1233.2	1231.9	1231.9	1229.0	1226.1	1229.0	1224.6
7.5°	1207.2	1207.2	1202.9	1202.9	1197.1	1194.2	1194.2	1192.8
10°	1187.0	1182.6	1178.2	1179.8	1171.1	1168.1	1166.8	1165.2
12.5°	1176.9	1174.0	1166.8	1166.8	1158.0	1155.1	1153.8	1152.2
15°	1165.2	1159.5	1153.8	1152.2	1145.0	1142.1	1140.6	1137.8
17.5°	1145.0	1140.6	1133.4	1133.4	1126.2	1124.8	1121.9	1120.4
20°	1123.2	1117.5	1111.8	1111.8	1103.0	1103.0	1098.8	1100.1
22.5°	1092.9	1088.5	1082.8	1082.8	1075.5	1074.1	1069.8	1068.2
25°	1056.8	1050.9	1046.6	1045.1	1039.4	1036.5	1035.0	1032.1
27.5°	1009.0	1004.6	1000.2	997.4	990.1	988.6	984.4	985.8
30°	949.6	946.8	945.2	942.4	933.6	930.8	930.8	926.4
32.5°	884.5	880.1	877.2	872.9	865.6	864.1	859.9	861.2
35°	804.9	799.0	794.8	796.1	787.5	786.0	783.1	784.6
37.5°	722.4	716.5	710.8	709.2	702.0	702.0	697.8	697.8
40°	636.9	631.1	628.2	628.2	619.5	621.0	616.6	615.2
42.5°	560.2	554.4	553.0	551.5	547.1	545.8	541.4	542.9
45°	487.9	486.4	486.4	483.5	479.1	477.8	479.1	479.1
47.5°	424.1	425.6	424.1	424.1	421.2	424.1	421.2	422.6
50°	370.6	373.5	373.5	373.5	372.0	373.5	373.5	374.9
52.5°	325.8	330.0	328.6	330.0	328.6	331.5	330.0	331.5
55°	286.6	289.5	291.0	292.4	292.4	292.4	292.4	292.4
57.5°	250.4	254.8	256.2	257.6	257.6	260.5	257.6	257.6
60°	221.5	225.9	227.2	228.8	228.8	230.1	227.2	228.8
62.5°	195.4	199.8	199.8	201.2	201.2	201.2	198.4	199.8
65°	169.4	170.8	172.2	172.2	170.8	170.8	169.4	170.8
67.5°	140.4	141.9	140.4	140.4	139.0	139.0	136.1	137.5
70°	108.6	108.6	110.0	108.6	107.1	108.6	107.1	105.6
72.5°	81.1	81.1	81.1	79.6	79.6	78.1	79.6	79.6
75°	55.0	55.0	56.5	56.5	56.5	56.5	55.0	55.0
77.5°	36.2	36.2	36.2	36.2	37.6	36.2	36.2	36.2
80°	23.1	23.1	24.6	24.6	23.1	23.1	23.1	23.1
82.5°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
85°	8.6	8.6	8.6	8.6	7.2	7.2	7.2	7.2
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)