

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: P252579

Luminaire Tested: **LE_6B20D010 EC6B10209040 6LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252579
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 EC6B10209040 6LBDW1LI
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2202.5 lumens
Efficiency: N/A
Efficacy: 105.9 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

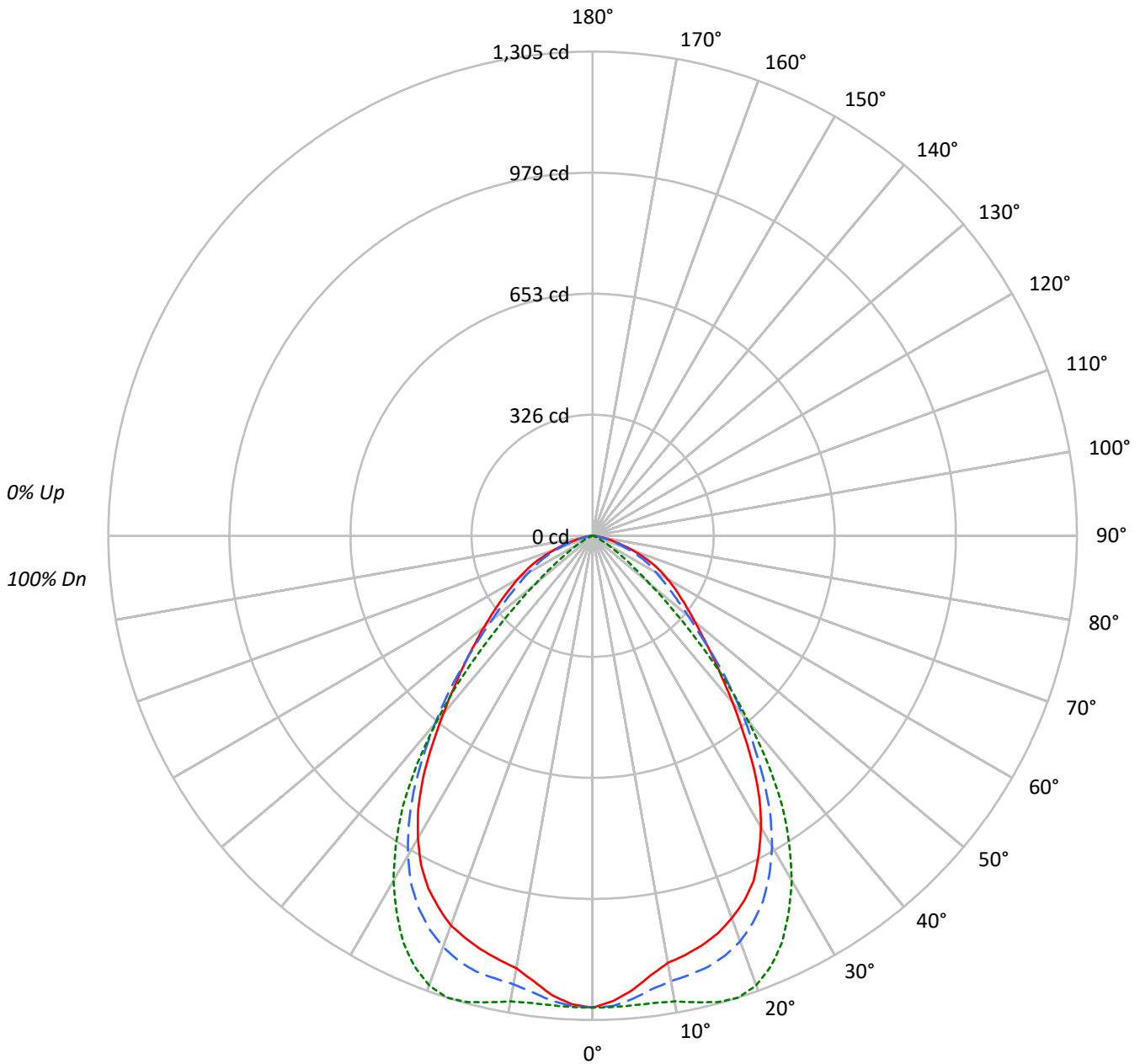
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	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°	82960	82960	82960
5°	80487	83179	81443
10°	77430	84432	78397
15°	77147	87872	78045
20°	76134	89506	77565
25°	73864	86987	75448
30°	68327	80840	70881
35°	59940	71074	63460
40°	49950	55707	53211
45°	42054	36758	44896
50°	36417	20147	38650
55°	32940	10703	33782
60°	30298	5559	30298
65°	27463	2949	26784
70°	22146	1698	20487
75°	15175	1109	14091
80°	9956	564	8829
85°	6662	1123	5539



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.6	5.4
10°-20°	342.9	15.6
20°-30°	506.6	23.0
30°-40°	511.7	23.2
40°-50°	352.7	16.0
50°-60°	202.6	9.2
60°-70°	117.9	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°	968.1	44.0
0°-40°	1479.8	67.2
0°-60°	2035.0	92.4
0°-90°	2202.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2202.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1272	1272	1272	1272	1272	
5°	1229	1252	1270	1258	1244	115
15°	1142	1202	1301	1216	1156	322
25°	1026	1086	1208	1108	1048	468
35°	753	804	892	841	797	467
45°	456	462	398	491	487	354
55°	290	254	94	265	297	261
65°	178	150	19	148	174	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°	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1255.5	1256.9	1258.4	1256.9	1258.4	1264.2	1259.9	1262.8	1262.8	1264.2	1268.6
5°	1229.0	1229.0	1231.9	1230.5	1234.9	1240.8	1236.4	1240.8	1242.2	1245.1	1252.5
7.5°	1195.1	1195.1	1196.6	1196.6	1202.5	1208.4	1205.5	1211.4	1217.2	1223.1	1231.9
10°	1168.8	1171.6	1171.6	1173.1	1179.0	1186.4	1184.9	1192.2	1198.1	1206.9	1218.8
12.5°	1157.0	1158.4	1158.4	1161.4	1167.2	1174.6	1173.1	1180.5	1189.2	1199.6	1211.4
15°	1142.2	1145.1	1143.8	1146.6	1152.5	1159.9	1158.4	1165.8	1176.0	1186.4	1202.5
17.5°	1123.1	1124.6	1126.1	1126.1	1132.0	1137.9	1137.9	1145.1	1157.0	1168.8	1186.4
20°	1096.6	1099.6	1099.6	1101.1	1105.5	1114.4	1112.9	1120.2	1132.0	1143.8	1162.9
22.5°	1065.8	1067.2	1067.2	1068.8	1076.1	1080.5	1082.0	1087.9	1098.1	1111.4	1129.0
25°	1026.1	1027.6	1026.1	1030.5	1033.5	1042.2	1039.4	1046.8	1058.5	1068.8	1086.4
27.5°	968.8	971.8	971.8	973.2	980.5	987.9	987.9	995.2	1005.5	1012.9	1030.5
30°	907.0	911.5	907.0	914.4	917.4	923.2	927.6	932.0	940.9	951.1	967.2
32.5°	836.5	835.0	836.5	839.4	848.2	852.6	855.6	860.0	868.9	877.6	890.9
35°	752.6	755.6	757.1	763.0	763.0	770.4	771.8	774.8	788.0	793.9	804.1
37.5°	664.5	667.4	668.9	671.9	677.8	680.6	685.0	689.5	698.2	708.6	714.5
40°	586.5	586.5	588.0	591.0	595.4	596.9	601.2	607.1	613.0	621.9	627.8
42.5°	513.0	514.5	513.0	516.0	520.4	526.2	524.9	532.1	533.6	539.5	543.9
45°	455.8	455.8	452.8	455.8	455.8	461.6	460.1	463.1	461.6	464.5	461.6
47.5°	401.4	402.8	401.4	402.8	402.8	402.8	404.2	401.4	402.8	398.4	389.6
50°	358.8	360.1	357.2	358.8	357.2	355.8	357.2	352.9	351.4	345.5	336.6
52.5°	322.0	320.5	319.0	319.0	319.0	317.5	316.1	311.6	307.2	301.4	291.1
55°	289.6	288.1	286.6	286.6	283.8	282.2	282.2	277.9	273.4	266.1	254.4
57.5°	260.2	258.8	257.2	257.2	255.8	252.9	252.9	248.5	242.5	233.8	223.5
60°	232.2	232.2	232.2	230.8	230.8	227.9	227.9	223.5	217.6	208.8	197.0
62.5°	207.2	205.8	205.8	205.8	205.8	204.4	202.9	199.9	194.0	185.2	175.0
65°	177.9	177.9	177.9	177.9	176.4	176.4	176.4	172.0	169.0	160.2	150.0
67.5°	145.5	145.5	145.5	145.5	144.1	145.5	145.5	142.6	139.6	130.9	122.0
70°	116.1	114.6	113.2	114.6	113.2	113.2	114.6	111.8	110.2	102.9	94.1
72.5°	85.2	86.8	85.2	85.2	85.2	83.8	85.2	83.8	80.9	75.0	69.1
75°	60.2	61.8	61.8	60.2	60.2	60.2	58.8	58.8	55.9	51.5	48.5
77.5°	41.1	41.1	41.1	41.1	39.8	39.8	39.8	38.2	36.8	33.8	30.9
80°	26.5	26.5	26.5	26.5	25.0	25.0	25.0	23.5	23.5	20.6	17.6
82.5°	16.1	16.1	16.1	16.1	16.1	16.1	14.8	14.8	13.2	11.8	10.2
85°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	7.4	7.4	5.9	4.4
87.5°	3.0	3.0	4.4	4.4	4.4	4.4	4.4	4.4	3.0	3.0	3.0
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°	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1265.8	1267.2	1267.2	1267.2	1271.6	1273.1	1268.6	1264.2	1273.1	1271.6	1274.5
5°	1251.0	1255.5	1258.4	1259.9	1264.2	1267.2	1262.8	1261.4	1268.6	1270.1	1271.6
7.5°	1233.4	1240.8	1248.1	1251.0	1256.9	1259.9	1258.4	1258.4	1267.2	1270.1	1270.1
10°	1221.6	1231.9	1240.8	1248.1	1255.5	1259.9	1259.9	1261.4	1271.6	1274.5	1277.5
12.5°	1218.8	1231.9	1243.6	1254.0	1259.9	1267.2	1268.6	1273.1	1283.4	1287.8	1287.8
15°	1211.4	1229.0	1243.6	1256.9	1265.8	1274.5	1277.5	1286.4	1298.1	1301.0	1304.0
17.5°	1198.1	1215.8	1233.4	1249.5	1261.4	1268.6	1277.5	1286.4	1301.0	1305.4	1306.9
20°	1174.6	1195.1	1212.8	1229.0	1240.8	1251.0	1259.9	1270.1	1283.4	1289.2	1290.8
22.5°	1139.2	1159.9	1177.5	1195.1	1206.9	1215.8	1224.6	1236.4	1249.5	1255.5	1255.5
25°	1096.6	1115.8	1134.9	1148.1	1159.9	1170.1	1174.6	1187.9	1201.0	1208.4	1208.4
27.5°	1042.2	1059.9	1077.6	1092.2	1099.6	1108.4	1115.8	1127.5	1137.9	1143.8	1149.6
30°	973.2	990.9	1007.0	1021.8	1030.5	1039.4	1046.8	1055.5	1065.8	1073.1	1074.6
32.5°	898.2	912.9	929.1	943.8	952.6	955.5	962.9	971.8	980.5	986.4	987.9
35°	815.9	826.1	836.5	849.8	858.5	858.5	865.9	871.8	879.1	892.4	889.4
37.5°	718.9	733.6	740.9	745.4	751.2	757.1	758.5	765.9	774.8	777.6	782.1
40°	627.8	632.1	636.5	636.5	642.4	642.4	642.4	643.9	652.8	654.1	660.1
42.5°	536.6	536.6	532.1	527.8	529.2	527.8	520.4	520.4	524.9	530.8	530.8
45°	451.2	441.0	427.8	417.5	410.1	407.2	398.4	398.4	396.9	398.4	404.2
47.5°	379.2	361.6	339.6	319.0	311.6	305.8	292.5	286.6	283.8	285.2	288.1
50°	319.0	299.9	274.9	249.9	236.6	229.4	213.1	202.9	201.4	198.5	204.4
52.5°	274.9	251.4	224.9	195.5	182.2	170.5	152.9	144.1	138.1	138.1	139.6
55°	236.6	211.8	182.2	152.9	139.6	130.9	113.2	101.4	95.5	94.1	98.5
57.5°	204.4	180.9	151.4	122.0	108.8	98.5	80.9	70.6	66.1	63.2	64.6
60°	179.4	155.9	126.4	98.5	86.8	75.0	60.2	48.5	42.6	42.6	44.1
62.5°	155.9	133.8	107.4	80.9	70.6	60.2	44.1	33.8	29.4	27.9	29.4
65°	132.2	111.8	89.6	67.6	57.4	48.5	35.2	26.5	20.6	19.1	20.6
67.5°	107.4	91.1	72.0	54.4	45.6	38.2	26.5	19.1	14.8	13.2	14.8
70°	83.8	69.1	54.4	39.8	33.8	27.9	19.1	14.8	10.2	8.9	10.2
72.5°	60.2	50.0	38.2	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	14.8	13.2	8.9	5.9	4.4	4.4	4.4
77.5°	26.5	20.6	16.1	11.8	8.9	7.4	4.4	3.0	3.0	3.0	3.0
80°	14.8	11.8	8.9	5.9	4.4	4.4	3.0	3.0	1.5	1.5	1.5
82.5°	8.9	5.9	4.4	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
85°	4.4	3.0	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°	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1268.6	1270.1	1265.8	1271.6	1267.2	1273.1	1273.1	1267.2	1268.6	1265.8	1271.6
5°	1265.8	1265.8	1262.8	1267.2	1261.4	1267.2	1265.8	1255.5	1258.4	1252.5	1258.4
7.5°	1265.8	1262.8	1258.4	1262.8	1255.5	1259.9	1254.0	1243.6	1240.8	1233.4	1233.4
10°	1270.1	1265.8	1259.9	1261.4	1254.0	1255.5	1246.6	1231.9	1227.5	1218.8	1215.8
12.5°	1280.4	1276.0	1267.2	1270.1	1259.9	1259.9	1248.1	1230.5	1221.6	1209.9	1206.9
15°	1295.1	1287.8	1277.5	1279.0	1268.6	1262.8	1248.1	1227.5	1215.8	1199.6	1195.1
17.5°	1298.1	1290.8	1277.5	1277.5	1264.2	1256.9	1239.2	1215.8	1201.0	1184.9	1176.0
20°	1281.9	1274.5	1259.9	1258.4	1246.6	1236.4	1217.2	1193.8	1179.0	1161.4	1154.0
22.5°	1248.1	1239.2	1226.0	1224.6	1212.8	1206.9	1186.4	1162.9	1148.1	1130.5	1124.6
25°	1198.1	1193.8	1180.5	1179.0	1168.8	1161.4	1143.8	1121.6	1108.4	1090.8	1084.9
27.5°	1139.2	1134.9	1121.6	1121.6	1109.9	1105.5	1089.4	1068.8	1058.5	1042.2	1034.9
30°	1068.8	1062.9	1055.5	1054.0	1043.8	1039.4	1024.6	1005.5	995.2	982.0	979.1
32.5°	985.0	980.5	976.1	974.6	964.4	960.0	949.6	930.5	921.8	910.0	905.6
35°	887.9	885.0	880.6	879.1	874.8	870.2	860.0	845.2	840.9	832.0	827.6
37.5°	776.2	779.1	776.2	776.2	771.8	773.2	764.5	755.6	751.2	745.4	742.4
40°	655.6	661.5	666.0	666.0	664.5	670.4	668.9	661.5	660.1	657.1	655.6
42.5°	533.6	536.6	545.4	551.2	549.8	564.5	566.0	571.9	576.2	573.4	574.8
45°	405.8	414.5	426.4	432.2	439.5	458.6	469.0	480.8	491.0	496.9	495.4
47.5°	292.5	302.9	316.1	324.9	338.1	361.6	388.1	402.8	417.5	424.9	432.2
50°	211.8	222.0	238.1	251.4	260.2	292.5	320.5	339.6	355.8	366.0	373.4
52.5°	148.5	160.2	177.9	189.6	202.9	233.8	266.1	288.1	305.8	319.0	326.4
55°	102.9	116.1	132.2	144.1	158.8	191.1	222.0	245.5	264.6	276.4	285.2
57.5°	72.0	83.8	100.0	110.2	125.0	155.9	186.8	210.2	229.4	241.1	251.4
60°	48.5	60.2	76.5	86.8	98.5	129.4	157.2	182.2	199.9	211.8	222.0
62.5°	33.8	44.1	60.2	70.6	80.9	107.4	133.8	155.9	173.5	186.8	195.5
65°	26.5	35.2	48.5	57.4	67.6	89.6	111.8	130.9	148.5	161.8	167.6
67.5°	19.1	27.9	38.2	45.6	52.9	72.0	91.1	105.9	122.0	132.2	139.6
70°	13.2	19.1	27.9	33.8	39.8	54.4	69.1	82.4	94.1	101.4	107.4
72.5°	10.2	13.2	19.1	23.5	27.9	38.2	50.0	60.2	69.1	75.0	80.9
75°	5.9	8.9	13.2	16.1	19.1	26.5	33.8	41.1	47.0	51.5	54.4
77.5°	3.0	4.4	7.4	8.9	11.8	16.1	22.0	26.5	30.9	33.8	36.8
80°	3.0	3.0	4.4	4.4	5.9	8.9	11.8	14.8	17.6	20.6	22.0
82.5°	1.5	1.5	3.0	3.0	3.0	4.4	5.9	8.9	10.2	11.8	13.2
85°	1.5	1.5	1.5	1.5	1.5	3.0	3.0	4.4	5.9	7.4	7.4
87.5°	0.0	0.0	1.5	1.5	1.5	1.5	1.5	3.0	3.0	3.0	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: P252579

CATALOG NUMBER: LE_6B20D010 EC6B10209040 6LBDW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6	1271.6
2.5°	1267.2	1270.1	1268.6	1271.6	1267.2	1265.8	1268.6	1264.2
5°	1251.0	1252.5	1251.0	1251.0	1248.1	1245.1	1248.1	1243.6
7.5°	1226.0	1226.0	1221.6	1221.6	1215.8	1212.8	1212.8	1211.4
10°	1205.5	1201.0	1196.6	1198.1	1189.2	1186.4	1184.9	1183.4
12.5°	1195.1	1192.2	1184.9	1184.9	1176.0	1173.1	1171.6	1170.1
15°	1183.4	1177.5	1171.6	1170.1	1162.9	1159.9	1158.4	1155.5
17.5°	1162.9	1158.4	1151.1	1151.1	1143.8	1142.2	1139.2	1137.9
20°	1140.8	1134.9	1129.0	1129.0	1120.2	1120.2	1115.8	1117.2
22.5°	1109.9	1105.5	1099.6	1099.6	1092.2	1090.8	1086.4	1084.9
25°	1073.1	1067.2	1062.9	1061.4	1055.5	1052.6	1051.1	1048.1
27.5°	1024.6	1020.2	1015.9	1012.9	1005.5	1004.0	999.6	1001.1
30°	964.4	961.4	960.0	957.0	948.2	945.2	945.2	940.9
32.5°	898.2	893.8	890.9	886.5	879.1	877.6	873.2	874.8
35°	817.4	811.5	807.1	808.5	799.8	798.2	795.2	796.8
37.5°	733.6	727.6	721.8	720.4	713.0	713.0	708.6	708.6
40°	646.9	641.0	638.0	638.0	629.2	630.6	626.2	624.8
42.5°	568.9	563.0	561.6	560.1	555.8	554.2	549.8	551.2
45°	495.4	494.0	494.0	491.0	486.6	485.1	486.6	486.6
47.5°	430.8	432.2	430.8	430.8	427.8	430.8	427.8	429.2
50°	376.4	379.2	379.2	379.2	377.8	379.2	379.2	380.8
52.5°	330.8	335.1	333.8	335.1	333.8	336.6	335.1	336.6
55°	291.1	294.0	295.5	297.0	297.0	297.0	297.0	297.0
57.5°	254.4	258.8	260.2	261.6	261.6	264.6	261.6	261.6
60°	224.9	229.4	230.8	232.2	232.2	233.8	230.8	232.2
62.5°	198.5	202.9	202.9	204.4	204.4	204.4	201.4	202.9
65°	172.0	173.5	175.0	175.0	173.5	173.5	172.0	173.5
67.5°	142.6	144.1	142.6	142.6	141.1	141.1	138.1	139.6
70°	110.2	110.2	111.8	110.2	108.8	110.2	108.8	107.4
72.5°	82.4	82.4	82.4	80.9	80.9	79.4	80.9	80.9
75°	55.9	55.9	57.4	57.4	57.4	57.4	55.9	55.9
77.5°	36.8	36.8	36.8	36.8	38.2	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°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
85°	8.9	8.9	8.9	8.9	7.4	7.4	7.4	7.4
87.5°	4.4	4.4	4.4	4.4	4.4	4.4	3.0	3.0
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)