

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: P252149

Luminaire Tested: **LE_6B15D010 EC6B10209035 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252149
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B15D010 EC6B10209035 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE 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: 2021.2 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

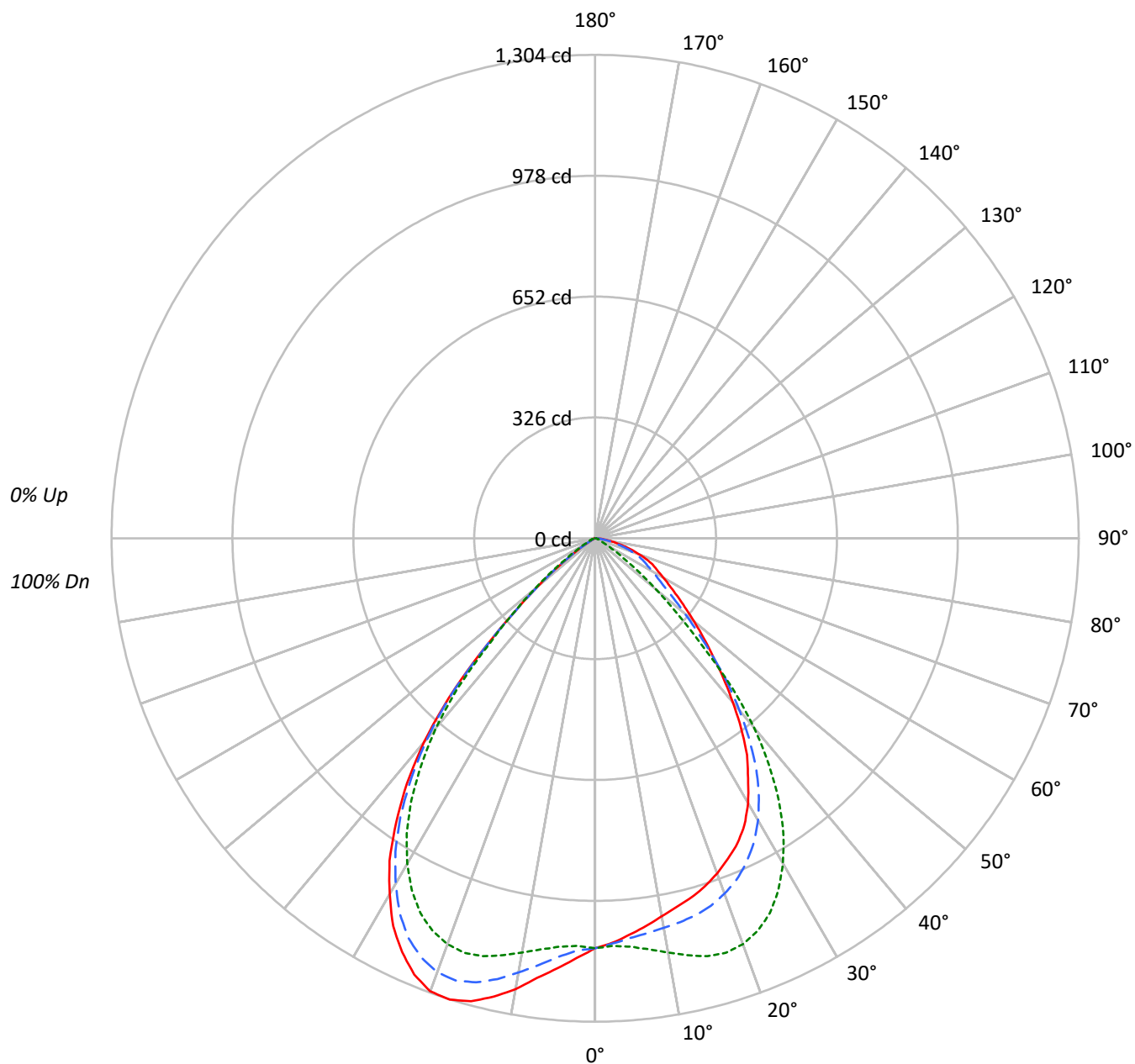
Input Watts (W): 14.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90		
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80		
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72		
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65		
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58		
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53		
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48		
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44		
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40		
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	72143	72143	72143
5°	70271	72419	76224
10°	68566	75151	81802
15°	67758	78828	87325
20°	66789	80883	90270
25°	65370	80278	88657
30°	62120	76298	83462
35°	56834	68797	74515
40°	49158	56814	61132
45°	41445	37266	39987
50°	35199	21568	20279
55°	30540	10339	7826
60°	27584	4828	1931
65°	26768	2779	648
70°	23996	2213	591
75°	19712	1613	252
80°	14690	789	0
85°	12651	0	0



TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.8	5.3
10°-20°	325.5	16.1
20°-30°	497.4	24.6
30°-40°	520.2	25.7
40°-50°	337.4	16.7
50°-60°	134.0	6.6
60°-70°	63.5	3.1
70°-80°	30.2	1.5
80°-90°	6.2	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°	929.7	46.0
0°-40°	1449.9	71.7
0°-60°	1921.3	95.1
0°-90°	2021.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2021.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1106	1106	1106	1106	1106	
5°	1073	1082	1106	1133	1164	101
15°	1003	1052	1167	1240	1293	283
25°	908	965	1115	1190	1232	416
35°	714	757	864	914	936	441
45°	449	445	404	428	433	350
55°	268	228	91	71	69	243
65°	173	144	18	4	4	169
75°	78	63	6	2	1	84
85°	17	11	0	0	0	20
90°	0	0	0	0	0	



TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1092.0	1094.1	1082.5	1079.4	1087.8	1091.0	1092.0	1088.9	1089.9	1094.1	1094.1
5°	1073.0	1075.1	1064.5	1061.4	1069.9	1072.0	1075.1	1074.1	1077.2	1083.6	1082.5
7.5°	1055.0	1058.2	1046.6	1042.4	1052.9	1058.2	1060.4	1060.4	1064.5	1073.0	1074.1
10°	1035.0	1039.1	1028.6	1026.5	1038.1	1043.4	1044.5	1046.6	1052.9	1064.5	1066.6
12.5°	1018.0	1022.2	1014.9	1011.8	1024.4	1029.6	1031.8	1036.0	1043.4	1058.2	1060.4
15°	1003.2	1006.4	998.0	995.9	1008.5	1014.9	1015.9	1022.2	1031.8	1048.8	1051.9
17.5°	984.2	986.4	980.0	977.9	990.5	996.9	998.0	1005.4	1017.0	1033.9	1039.1
20°	962.0	964.1	957.8	955.6	968.4	975.8	976.8	983.1	996.9	1014.9	1020.1
22.5°	935.6	939.8	932.4	930.2	943.0	949.4	952.5	957.8	971.5	989.5	996.9
25°	908.1	908.1	902.8	901.8	913.4	920.8	919.8	927.1	940.9	958.9	965.1
27.5°	872.1	871.1	865.8	864.8	877.5	883.8	881.6	889.1	901.8	919.8	926.1
30°	824.6	826.8	819.2	817.1	827.8	838.4	837.2	844.6	857.4	874.2	878.5
32.5°	767.5	769.6	768.5	765.4	774.9	780.1	783.4	788.6	799.2	817.1	821.4
35°	713.6	710.4	706.1	706.1	715.8	724.1	721.0	727.4	737.9	755.9	756.9
37.5°	647.0	645.9	643.8	641.8	652.2	654.4	655.4	659.6	669.1	684.0	681.9
40°	577.2	578.2	577.2	573.0	579.4	587.8	586.8	588.9	597.2	607.9	604.8
42.5°	511.6	511.6	511.6	507.4	514.9	519.1	521.1	520.1	522.2	531.8	527.5
45°	449.2	450.4	449.2	448.2	449.2	451.4	449.2	448.2	448.2	451.4	445.0
47.5°	395.4	395.4	392.2	389.0	392.2	393.2	390.1	386.9	385.9	384.8	374.2
50°	346.8	345.8	344.6	339.4	342.5	343.6	339.4	337.2	333.0	327.8	315.0
52.5°	304.5	303.4	302.4	297.0	299.1	300.2	296.0	291.8	286.5	282.2	266.4
55°	268.5	267.5	267.5	264.2	262.1	264.2	260.0	256.9	249.5	244.2	228.4
57.5°	237.9	237.9	235.8	232.6	233.6	233.6	229.4	225.1	218.9	212.5	199.8
60°	211.4	211.4	211.4	208.2	208.2	208.2	206.1	201.9	196.6	190.2	177.6
62.5°	190.2	190.2	189.2	186.0	187.1	187.1	185.0	180.8	175.5	171.2	158.6
65°	173.4	173.4	173.4	170.2	170.2	171.2	169.1	164.9	160.6	155.4	143.8
67.5°	152.2	151.1	151.1	149.0	150.1	151.1	149.0	145.9	140.6	137.4	126.9
70°	125.8	126.9	127.9	124.8	125.8	125.8	124.8	121.6	118.4	115.2	105.8
72.5°	102.5	102.5	101.5	100.4	100.4	101.5	99.4	96.2	94.1	92.0	84.6
75°	78.2	77.1	78.2	76.1	76.1	76.1	74.0	73.0	71.9	68.8	63.4
77.5°	57.1	56.0	56.0	53.9	55.0	55.0	53.9	51.8	49.6	48.6	44.4
80°	39.1	39.1	39.1	38.0	38.0	37.0	37.0	36.0	33.9	32.8	30.6
82.5°	26.4	26.4	26.4	25.4	25.4	25.4	24.4	23.2	22.2	21.1	19.0
85°	16.9	16.9	16.9	15.9	15.9	15.9	14.8	14.8	13.8	12.6	10.6
87.5°	9.5	9.5	9.5	8.5	8.5	8.5	8.5	8.5	7.4	6.4	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



TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1101.5	1086.8	1096.2	1096.2	1093.1	1101.5	1106.9	1111.1	1110.0	1100.5	1099.5
5°	1093.1	1080.4	1091.0	1092.0	1088.9	1100.5	1107.9	1113.1	1114.2	1105.8	1106.9
7.5°	1086.8	1076.1	1089.9	1094.1	1093.1	1103.6	1112.1	1120.6	1124.8	1118.5	1119.5
10°	1083.6	1075.1	1089.9	1096.2	1097.4	1109.0	1121.6	1133.2	1138.5	1134.4	1137.5
12.5°	1079.4	1074.1	1091.0	1100.5	1104.8	1116.4	1132.2	1146.0	1154.4	1152.2	1158.6
15°	1075.1	1070.9	1091.0	1104.8	1110.0	1120.6	1138.5	1158.6	1168.1	1167.1	1175.5
17.5°	1064.5	1063.5	1084.6	1099.5	1106.9	1119.5	1136.5	1160.8	1170.2	1172.4	1183.0
20°	1047.6	1047.6	1070.9	1086.8	1095.2	1106.9	1128.0	1151.2	1162.9	1165.0	1176.6
22.5°	1024.4	1026.5	1048.8	1064.5	1077.2	1085.8	1107.9	1132.2	1142.8	1146.0	1158.6
25°	993.8	995.9	1017.0	1032.9	1046.6	1056.1	1077.2	1099.5	1112.1	1115.2	1124.8
27.5°	953.5	957.8	977.9	993.8	1005.4	1011.8	1033.9	1057.1	1066.6	1069.9	1079.4
30°	907.0	908.1	928.1	941.9	953.5	958.9	977.9	1002.1	1009.6	1012.8	1026.5
32.5°	850.0	848.9	867.9	880.6	890.1	896.5	916.5	932.4	939.8	945.1	952.5
35°	781.2	780.1	793.9	808.8	816.1	818.2	838.4	855.2	859.5	863.8	873.2
37.5°	704.1	704.1	715.8	723.1	731.5	734.8	744.2	763.2	770.6	769.6	777.0
40°	622.6	618.4	626.9	634.2	636.4	637.5	647.0	661.8	667.1	667.1	672.4
42.5°	537.0	530.8	531.8	536.0	538.1	530.8	537.0	546.5	543.4	547.6	548.6
45°	446.1	436.6	432.4	422.9	425.0	417.6	413.4	415.5	414.4	403.9	406.0
47.5°	372.1	355.2	347.8	334.0	330.9	322.4	317.1	307.6	299.1	299.1	293.9
50°	309.8	292.9	278.0	262.1	256.9	249.5	237.9	225.1	218.9	212.5	207.2
52.5°	260.0	242.1	224.1	207.2	199.8	190.2	174.4	161.8	150.1	143.8	137.4
55°	219.9	199.8	180.8	162.8	153.2	143.8	127.9	113.1	99.4	90.9	85.6
57.5°	189.2	170.2	150.1	131.1	122.6	112.0	95.1	79.2	66.6	57.1	51.8
60°	167.0	148.0	130.0	110.0	101.5	90.9	73.0	58.1	45.5	37.0	30.6
62.5°	148.0	131.1	112.0	94.1	85.6	75.0	58.1	43.4	31.8	23.2	18.0
65°	134.2	117.4	101.5	83.5	76.1	65.5	49.6	36.0	25.4	18.0	12.6
67.5°	118.4	103.6	87.8	73.0	65.5	57.1	42.2	30.6	21.1	14.8	10.6
70°	99.4	87.8	74.0	60.2	55.0	47.6	34.9	25.4	16.9	11.6	8.5
72.5°	79.2	69.8	59.2	48.6	44.4	37.0	28.5	20.1	12.6	8.5	6.4
75°	60.2	52.9	44.4	37.0	32.8	28.5	21.1	14.8	9.5	6.4	4.2
77.5°	41.2	38.0	31.8	25.4	23.2	20.1	13.8	9.5	6.4	4.2	2.1
80°	28.5	25.4	21.1	16.9	14.8	12.6	8.5	6.4	3.1	2.1	1.0
82.5°	18.0	14.8	12.6	10.6	9.5	7.4	5.2	3.1	2.1	1.0	1.0
85°	9.5	8.5	7.4	5.2	5.2	4.2	3.1	2.1	1.0	0.0	0.0
87.5°	5.2	4.2	3.1	2.1	2.1	1.0	1.0	1.0	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



TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1112.1	1112.1	1111.1	1123.8	1109.0	1123.8	1116.4	1123.8	1113.1	1112.1	1113.1
5°	1120.6	1123.8	1124.8	1136.5	1122.8	1140.6	1134.4	1140.6	1133.2	1135.4	1138.5
7.5°	1137.5	1142.8	1141.8	1156.5	1142.8	1162.9	1158.6	1168.1	1160.8	1162.9	1167.1
10°	1156.5	1162.9	1163.9	1178.8	1166.0	1190.4	1185.1	1195.6	1189.2	1192.5	1197.8
12.5°	1178.8	1186.1	1187.1	1204.1	1190.4	1215.8	1212.5	1223.1	1217.9	1221.0	1227.4
15°	1195.6	1206.2	1208.4	1225.2	1210.5	1236.9	1234.8	1248.5	1240.0	1245.4	1250.6
17.5°	1204.1	1213.6	1217.9	1233.8	1221.0	1247.5	1245.4	1257.0	1250.6	1255.9	1262.2
20°	1198.9	1210.5	1213.6	1229.5	1216.8	1243.2	1240.0	1251.6	1245.4	1249.5	1255.9
22.5°	1179.8	1191.4	1195.6	1210.5	1198.9	1223.1	1222.1	1232.6	1224.1	1229.5	1234.8
25°	1146.0	1158.6	1160.8	1174.5	1161.8	1187.1	1185.1	1196.8	1190.4	1193.5	1200.9
27.5°	1097.4	1112.1	1115.2	1126.9	1117.4	1138.5	1138.5	1148.1	1140.6	1140.6	1148.1
30°	1039.1	1054.0	1056.1	1065.6	1057.1	1076.1	1077.2	1086.8	1075.1	1081.5	1082.5
32.5°	968.4	977.9	984.2	992.6	980.0	1004.2	1001.1	1008.5	1002.1	1002.1	1007.5
35°	882.8	894.4	897.5	908.1	897.5	916.5	916.5	920.8	914.5	914.5	922.9
37.5°	789.8	798.1	799.2	809.8	801.4	817.1	816.1	819.2	813.0	817.1	817.1
40°	680.8	687.1	689.2	694.5	693.5	705.1	704.1	706.1	703.0	704.1	706.1
42.5°	554.0	562.4	566.6	570.9	564.5	580.4	577.2	580.4	579.4	580.4	583.5
45°	408.0	414.4	417.6	418.6	416.5	426.0	433.4	427.1	428.1	426.0	430.2
47.5°	295.0	296.0	293.9	300.2	295.0	299.1	301.2	302.4	296.0	295.0	299.1
50°	201.9	207.2	199.8	203.0	201.9	206.1	204.0	205.1	198.8	201.9	199.8
52.5°	134.2	133.2	131.1	132.1	130.0	130.0	130.0	132.1	127.9	125.8	123.6
55°	81.4	79.2	75.0	74.0	74.0	75.0	73.0	70.9	70.9	69.8	69.8
57.5°	47.6	44.4	42.2	41.2	39.1	38.0	37.0	37.0	34.9	34.9	34.9
60°	26.4	23.2	21.1	19.0	19.0	18.0	16.9	15.9	15.9	15.9	14.8
62.5°	13.8	11.6	9.5	8.5	8.5	7.4	6.4	6.4	6.4	6.4	5.2
65°	9.5	7.4	6.4	5.2	5.2	4.2	4.2	4.2	4.2	4.2	4.2
67.5°	7.4	6.4	5.2	4.2	4.2	4.2	3.1	3.1	3.1	3.1	3.1
70°	6.4	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	4.2	4.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
75°	3.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
80°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	0.0	0.0	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



TEST NUMBER: P252149

CATALOG NUMBER: LE_6B15D010 EC6B10209035 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8	1105.8
2.5°	1122.8	1121.6	1122.8	1124.8	1120.6	1133.2	1126.9	1133.2
5°	1147.0	1148.1	1149.1	1152.2	1147.0	1162.9	1154.4	1163.9
7.5°	1178.8	1179.8	1180.9	1184.0	1180.9	1196.8	1187.1	1195.6
10°	1211.5	1213.6	1213.6	1218.9	1215.8	1230.5	1224.1	1234.8
12.5°	1242.1	1244.2	1246.4	1249.5	1247.5	1263.2	1258.0	1266.5
15°	1266.5	1270.8	1271.8	1276.0	1273.9	1290.8	1284.5	1292.9
17.5°	1278.1	1282.4	1282.4	1287.6	1285.5	1303.5	1295.0	1304.5
20°	1271.8	1274.9	1276.0	1281.2	1279.1	1297.1	1288.6	1300.2
22.5°	1251.6	1252.8	1253.8	1259.1	1258.0	1273.9	1266.5	1273.9
25°	1214.6	1217.9	1216.8	1221.0	1221.0	1233.8	1225.2	1231.6
27.5°	1161.8	1165.0	1165.0	1170.2	1166.0	1178.8	1170.2	1179.8
30°	1097.4	1100.5	1098.4	1102.6	1098.4	1111.1	1104.8	1107.9
32.5°	1020.1	1020.1	1021.2	1022.2	1020.1	1031.8	1025.5	1031.8
35°	928.1	930.2	931.4	932.4	930.2	938.8	931.4	935.6
37.5°	824.6	829.9	828.8	829.9	826.8	837.2	830.9	833.0
40°	713.6	713.6	712.5	714.6	711.5	719.9	715.8	717.8
42.5°	584.6	587.8	583.5	588.9	580.4	592.0	587.8	584.6
45°	438.8	434.5	433.4	434.5	431.4	432.4	435.5	433.4
47.5°	299.1	299.1	297.0	293.9	298.1	299.1	295.0	295.0
50°	200.9	200.9	198.8	197.8	199.8	198.8	196.6	199.8
52.5°	127.9	123.6	123.6	125.8	123.6	121.6	124.8	122.6
55°	69.8	67.6	67.6	69.8	67.6	67.6	66.6	68.8
57.5°	33.9	34.9	33.9	33.9	33.9	33.9	32.8	33.9
60°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
62.5°	6.4	6.4	5.2	5.2	5.2	5.2	5.2	5.2
65°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
67.5°	3.1	3.1	3.1	3.1	3.1	4.2	3.1	3.1
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	3.1	3.1	4.2	4.2	4.2	4.2	4.2	4.2
75°	2.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	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



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)