

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: io LED

Report Number: P252141

Luminaire Tested: **LD6B15D010 EU6B10208027 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252141  
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: io LED  
Catalog Number: LD6B15D010 EU6B10208027 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1786.0 lumens  
Efficiency: N/A  
Efficacy: 124.1 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

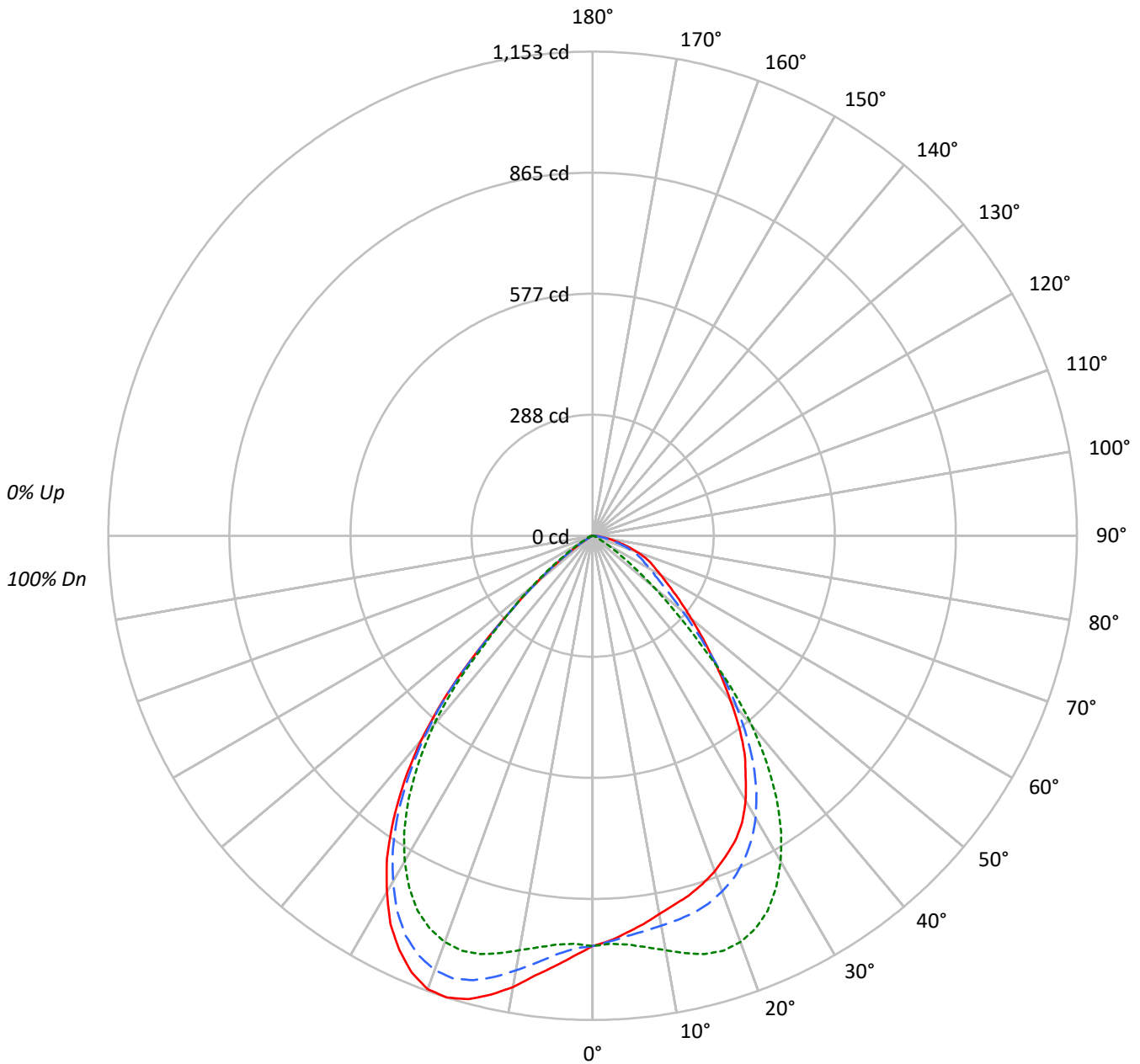
Input Watts (W): 14.39  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	63747	63747	63747
5°	62091	63990	67356
10°	60583	66399	72276
15°	59876	69656	77160
20°	59013	71469	79772
25°	57761	70941	78334
30°	54888	67416	73751
35°	50216	60784	65842
40°	43434	50197	54021
45°	36629	32920	35337
50°	31098	19061	17914
55°	26991	9134	6904
60°	24374	4267	1709
65°	23650	2455	571
70°	21211	1965	534
75°	17418	1412	227
80°	12999	714	0
85°	11153	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.4	5.3
10°-20°	287.6	16.1
20°-30°	439.5	24.6
30°-40°	459.6	25.7
40°-50°	298.2	16.7
50°-60°	118.4	6.6
60°-70°	56.2	3.1
70°-80°	26.7	1.5
80°-90°	5.4	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°	821.5	46.0
0°-40°	1281.1	71.7
0°-60°	1697.7	95.1
0°-90°	1786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1786.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	977	977	977	977	977	
5°	948	956	977	1001	1028	90
15°	886	929	1031	1096	1142	250
25°	802	853	986	1052	1088	367
35°	630	669	763	808	827	390
45°	397	393	357	378	383	309
55°	237	202	80	63	61	215
65°	153	127	16	4	4	150
75°	69	56	6	2	1	75
85°	15	9	0	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°	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1
2.5°	964.9	966.8	956.5	953.7	961.2	964.0	964.9	962.1	963.1	966.8	966.8
5°	948.1	950.0	940.7	937.9	945.3	947.2	950.0	949.1	951.9	957.5	956.5
7.5°	932.2	935.0	924.8	921.0	930.4	935.0	936.9	936.9	940.7	948.1	949.1
10°	914.5	918.2	908.9	907.0	917.3	922.0	922.9	924.8	930.4	940.7	942.5
12.5°	899.6	903.3	896.7	893.9	905.2	909.8	911.7	915.4	922.0	935.0	936.9
15°	886.5	889.3	881.8	879.9	891.1	896.7	897.7	903.3	911.7	926.6	929.4
17.5°	869.7	871.5	865.9	864.1	875.3	880.9	881.8	888.3	898.6	913.6	918.2
20°	850.0	851.9	846.3	844.4	855.6	862.2	863.1	868.7	880.9	896.7	901.4
22.5°	826.7	830.4	823.9	822.0	833.2	838.8	841.6	846.3	858.5	874.3	880.9
25°	802.4	802.4	797.7	796.8	807.1	813.6	812.7	819.2	831.4	847.2	852.8
27.5°	770.6	769.7	765.0	764.1	775.3	780.9	779.1	785.6	796.8	812.7	818.3
30°	728.6	730.5	723.9	722.1	731.4	740.8	739.8	746.4	757.6	772.5	776.2
32.5°	678.2	680.0	679.1	676.3	684.7	689.4	692.2	696.8	706.2	722.1	725.8
35°	630.5	627.7	624.0	624.0	632.4	639.9	637.1	642.7	652.0	667.9	668.8
37.5°	571.7	570.7	568.9	567.0	576.3	578.2	579.2	582.9	591.3	604.4	602.5
40°	510.0	511.0	510.0	506.3	511.9	519.4	518.4	520.3	527.8	537.1	534.3
42.5°	452.1	452.1	452.1	448.4	454.9	458.6	460.5	459.6	461.5	469.9	466.1
45°	397.0	397.9	397.0	396.1	397.0	398.9	397.0	396.1	396.1	398.9	393.3
47.5°	349.4	349.4	346.6	343.8	346.6	347.5	344.7	341.9	341.0	340.0	330.7
50°	306.4	305.5	304.5	299.9	302.7	303.6	299.9	298.0	294.2	289.6	278.4
52.5°	269.0	268.1	267.2	262.5	264.4	265.3	261.6	257.8	253.1	249.4	235.4
55°	237.3	236.3	236.3	233.5	231.7	233.5	229.8	227.0	220.5	215.8	201.8
57.5°	210.2	210.2	208.3	205.5	206.4	206.4	202.7	199.0	193.4	187.8	176.5
60°	186.8	186.8	186.8	184.0	184.0	184.0	182.2	178.4	173.7	168.1	156.9
62.5°	168.1	168.1	167.2	164.4	165.3	165.3	163.5	159.7	155.1	151.3	140.1
65°	153.2	153.2	153.2	150.4	150.4	151.3	149.5	145.7	142.0	137.3	127.0
67.5°	134.5	133.6	133.6	131.7	132.6	133.6	131.7	128.9	124.2	121.4	112.1
70°	111.2	112.1	113.0	110.2	111.2	111.2	110.2	107.4	104.6	101.8	93.4
72.5°	90.6	90.6	89.7	88.7	88.7	89.7	87.8	85.0	83.1	81.3	74.7
75°	69.1	68.2	69.1	67.3	67.3	67.3	65.4	64.5	63.5	60.7	56.0
77.5°	50.4	49.5	49.5	47.6	48.6	48.6	47.6	45.8	43.9	43.0	39.2
80°	34.6	34.6	34.6	33.6	33.6	32.7	32.7	31.8	29.9	29.0	27.1
82.5°	23.4	23.4	23.4	22.4	22.4	22.4	21.5	20.6	19.6	18.7	16.8
85°	14.9	14.9	14.9	14.0	14.0	14.0	13.1	13.1	12.1	11.2	9.3
87.5°	8.4	8.4	8.4	7.5	7.5	7.5	7.5	7.5	6.5	5.6	4.7
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°	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1
2.5°	973.3	960.3	968.7	968.7	965.9	973.3	978.0	981.8	980.8	972.4	971.5
5°	965.9	954.7	964.0	964.9	962.1	972.4	979.0	983.6	984.6	977.1	978.0
7.5°	960.3	950.9	963.1	966.8	965.9	975.2	982.7	990.2	993.9	988.3	989.2
10°	957.5	950.0	963.1	968.7	969.6	979.9	991.1	1001.4	1006.0	1002.3	1005.1
12.5°	953.7	949.1	964.0	972.4	976.1	986.4	1000.4	1012.6	1020.1	1018.2	1023.8
15°	950.0	946.3	964.0	976.1	980.8	990.2	1006.0	1023.8	1032.2	1031.3	1038.7
17.5°	940.7	939.7	958.4	971.5	978.0	989.2	1004.2	1025.7	1034.1	1035.9	1045.3
20°	925.7	925.7	946.3	960.3	967.7	978.0	996.7	1017.2	1027.5	1029.4	1039.7
22.5°	905.2	907.0	926.6	940.7	951.9	959.3	979.0	1000.4	1009.8	1012.6	1023.8
25°	878.1	879.9	898.6	912.6	924.8	933.2	951.9	971.5	982.7	985.5	993.9
27.5°	842.6	846.3	864.1	878.1	888.3	893.9	913.6	934.1	942.5	945.3	953.7
30°	801.5	802.4	820.2	832.3	842.6	847.2	864.1	885.5	892.1	894.9	907.0
32.5°	751.0	750.1	766.9	778.1	786.5	792.1	809.9	823.9	830.4	835.1	841.6
35°	690.3	689.4	701.5	714.6	721.1	723.0	740.8	755.7	759.4	763.2	771.6
37.5°	622.1	622.1	632.4	638.9	646.4	649.2	657.6	674.4	681.0	680.0	686.6
40°	550.2	546.5	553.9	560.5	562.3	563.3	571.7	584.8	589.4	589.4	594.1
42.5°	474.5	468.9	469.9	473.6	475.5	468.9	474.5	482.9	480.1	483.9	484.8
45°	394.2	385.8	382.1	373.6	375.5	369.0	365.2	367.1	366.2	356.8	358.7
47.5°	328.8	313.9	307.3	295.2	292.4	284.9	280.2	271.8	264.4	264.4	259.7
50°	273.7	258.7	245.7	231.7	227.0	220.5	210.2	199.0	193.4	187.8	183.1
52.5°	229.8	213.9	198.0	183.1	176.5	168.1	154.1	142.9	132.6	127.0	121.4
55°	194.3	176.5	159.7	143.9	135.4	127.0	113.0	100.0	87.8	80.3	75.7
57.5°	167.2	150.4	132.6	115.8	108.4	99.0	84.1	70.1	58.8	50.4	45.8
60°	147.6	130.8	114.9	97.1	89.7	80.3	64.5	51.4	40.2	32.7	27.1
62.5°	130.8	115.8	99.0	83.1	75.7	66.3	51.4	38.3	28.0	20.6	15.9
65°	118.6	103.7	89.7	73.8	67.3	57.9	43.9	31.8	22.4	15.9	11.2
67.5°	104.6	91.5	77.5	64.5	57.9	50.4	37.4	27.1	18.7	13.1	9.3
70°	87.8	77.5	65.4	53.2	48.6	42.0	30.8	22.4	14.9	10.3	7.5
72.5°	70.1	61.7	52.3	43.0	39.2	32.7	25.2	17.7	11.2	7.5	5.6
75°	53.2	46.7	39.2	32.7	29.0	25.2	18.7	13.1	8.4	5.6	3.7
77.5°	36.4	33.6	28.0	22.4	20.6	17.7	12.1	8.4	5.6	3.7	1.9
80°	25.2	22.4	18.7	14.9	13.1	11.2	7.5	5.6	2.8	1.9	0.9
82.5°	15.9	13.1	11.2	9.3	8.4	6.5	4.7	2.8	1.9	0.9	0.9
85°	8.4	7.5	6.5	4.7	4.7	3.7	2.8	1.9	0.9	0.0	0.0
87.5°	4.7	3.7	2.8	1.9	1.9	0.9	0.9	0.9	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°	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1
2.5°	982.7	982.7	981.8	993.0	979.9	993.0	986.4	993.0	983.6	982.7	983.6
5°	990.2	993.0	993.9	1004.2	992.0	1007.9	1002.3	1007.9	1001.4	1003.2	1006.0
7.5°	1005.1	1009.8	1008.8	1021.9	1009.8	1027.5	1023.8	1032.2	1025.7	1027.5	1031.3
10°	1021.9	1027.5	1028.5	1041.5	1030.3	1051.8	1047.1	1056.5	1050.9	1053.7	1058.4
12.5°	1041.5	1048.1	1049.0	1064.0	1051.8	1074.2	1071.4	1080.8	1076.1	1078.9	1084.5
15°	1056.5	1065.8	1067.7	1082.6	1069.6	1092.9	1091.0	1103.2	1095.7	1100.4	1105.1
17.5°	1064.0	1072.4	1076.1	1090.1	1078.9	1102.3	1100.4	1110.7	1105.1	1109.7	1115.3
20°	1059.3	1069.6	1072.4	1086.4	1075.2	1098.5	1095.7	1106.0	1100.4	1104.1	1109.7
22.5°	1042.5	1052.7	1056.5	1069.6	1059.3	1080.8	1079.8	1089.2	1081.7	1086.4	1091.0
25°	1012.6	1023.8	1025.7	1037.8	1026.6	1049.0	1047.1	1057.4	1051.8	1054.6	1061.2
27.5°	969.6	982.7	985.5	995.8	987.4	1006.0	1006.0	1014.4	1007.9	1007.9	1014.4
30°	918.2	931.3	933.2	941.6	934.1	950.9	951.9	960.3	950.0	955.6	956.5
32.5°	855.6	864.1	869.7	877.1	865.9	887.4	884.6	891.1	885.5	885.5	890.2
35°	780.0	790.3	793.1	802.4	793.1	809.9	809.9	813.6	808.0	808.0	815.5
37.5°	697.8	705.3	706.2	715.5	708.1	722.1	721.1	723.9	718.3	722.1	722.1
40°	601.6	607.2	609.0	613.7	612.8	623.1	622.1	624.0	621.2	622.1	624.0
42.5°	489.5	496.9	500.7	504.4	498.8	512.8	510.0	512.8	511.9	512.8	515.6
45°	360.6	366.2	369.0	369.9	368.0	376.4	383.0	377.4	378.3	376.4	380.2
47.5°	260.6	261.6	259.7	265.3	260.6	264.4	266.2	267.2	261.6	260.6	264.4
50°	178.4	183.1	176.5	179.3	178.4	182.2	180.3	181.2	175.6	178.4	176.5
52.5°	118.6	117.7	115.8	116.8	114.9	114.9	114.9	116.8	113.0	111.2	109.3
55°	71.9	70.1	66.3	65.4	65.4	66.3	64.5	62.6	62.6	61.7	61.7
57.5°	42.0	39.2	37.4	36.4	34.6	33.6	32.7	32.7	30.8	30.8	30.8
60°	23.4	20.6	18.7	16.8	16.8	15.9	14.9	14.0	14.0	14.0	13.1
62.5°	12.1	10.3	8.4	7.5	7.5	6.5	5.6	5.6	5.6	5.6	4.7
65°	8.4	6.5	5.6	4.7	4.7	3.7	3.7	3.7	3.7	3.7	3.7
67.5°	6.5	5.6	4.7	3.7	3.7	3.7	2.8	2.8	2.8	2.8	2.8
70°	5.6	3.7	3.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
72.5°	3.7	3.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
75°	2.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
80°	0.9	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: P252141

CATALOG NUMBER: LD6B15D010 EU6B10208027 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	977.1	977.1	977.1	977.1	977.1	977.1	977.1	977.1
2.5°	992.0	991.1	992.0	993.9	990.2	1001.4	995.8	1001.4
5°	1013.5	1014.4	1015.4	1018.2	1013.5	1027.5	1020.1	1028.5
7.5°	1041.5	1042.5	1043.4	1046.2	1043.4	1057.4	1049.0	1056.5
10°	1070.5	1072.4	1072.4	1077.0	1074.2	1087.3	1081.7	1091.0
12.5°	1097.6	1099.5	1101.3	1104.1	1102.3	1116.3	1111.6	1119.1
15°	1119.1	1122.8	1123.7	1127.5	1125.6	1140.6	1134.9	1142.4
17.5°	1129.3	1133.1	1133.1	1137.8	1135.9	1151.8	1144.3	1152.7
20°	1123.7	1126.5	1127.5	1132.1	1130.3	1146.2	1138.7	1149.0
22.5°	1106.0	1106.9	1107.9	1112.5	1111.6	1125.6	1119.1	1125.6
25°	1073.3	1076.1	1075.2	1078.9	1078.9	1090.1	1082.6	1088.2
27.5°	1026.6	1029.4	1029.4	1034.1	1030.3	1041.5	1034.1	1042.5
30°	969.6	972.4	970.5	974.3	970.5	981.8	976.1	979.0
32.5°	901.4	901.4	902.4	903.3	901.4	911.7	906.1	911.7
35°	820.2	822.0	823.0	823.9	822.0	829.5	823.0	826.7
37.5°	728.6	733.3	732.3	733.3	730.5	739.8	734.2	736.1
40°	630.5	630.5	629.6	631.5	628.7	636.1	632.4	634.3
42.5°	516.6	519.4	515.6	520.3	512.8	523.1	519.4	516.6
45°	387.7	383.9	383.0	383.9	381.1	382.1	384.9	383.0
47.5°	264.4	264.4	262.5	259.7	263.4	264.4	260.6	260.6
50°	177.5	177.5	175.6	174.7	176.5	175.6	173.7	176.5
52.5°	113.0	109.3	109.3	111.2	109.3	107.4	110.2	108.4
55°	61.7	59.8	59.8	61.7	59.8	59.8	58.8	60.7
57.5°	29.9	30.8	29.9	29.9	29.9	29.9	29.0	29.9
60°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
62.5°	5.6	5.6	4.7	4.7	4.7	4.7	4.7	4.7
65°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
67.5°	2.8	2.8	2.8	2.8	2.8	3.7	2.8	2.8
70°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
72.5°	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
75°	1.9	1.9	1.9	0.9	0.9	0.9	0.9	0.9
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)