

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: P252259

Luminaire Tested: **LD6B20D010 EU6B10208030 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252259  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20D010 EU6B10208030 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1884.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

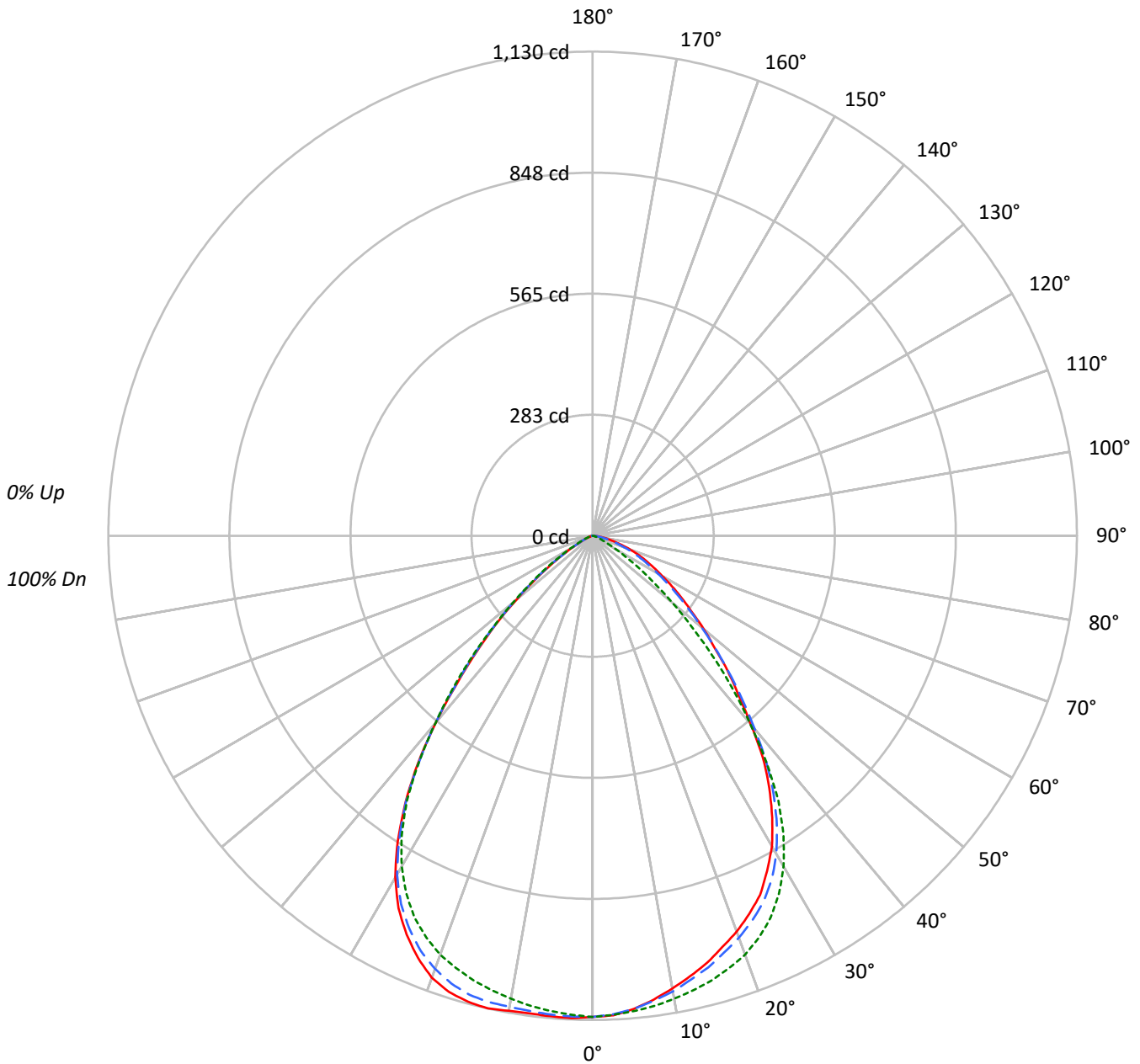
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47				47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43				43
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40				40
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37				37

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

	0°	90°	180°
0°	73265	73265	73265
5°	72569	72923	73722
10°	71070	72686	74574
15°	69710	72554	76032
20°	68268	72219	76176
25°	66586	70783	73907
30°	63039	67130	69375
35°	57248	60163	60705
40°	48859	48630	48400
45°	41048	36417	35291
50°	34275	24643	23405
55°	28845	15117	13729
60°	24426	7959	6902
65°	21149	4183	3350
70°	17587	2594	1812
75°	12982	1714	1033
80°	10182	1014	526
85°	8159	1048	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	5.6
10°-20°	303.0	16.1
20°-30°	447.5	23.8
30°-40°	461.2	24.5
40°-50°	318.5	16.9
50°-60°	157.0	8.3
60°-70°	63.6	3.4
70°-80°	22.7	1.2
80°-90°	4.7	0.2
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°	856.3	45.5
0°-40°	1317.5	69.9
0°-60°	1793.0	95.2
0°-90°	1884.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1884.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1123	1123	1123	1123	1123	
5°	1108	1108	1114	1122	1126	105
15°	1032	1043	1074	1109	1126	291
25°	925	943	983	1012	1027	423
35°	719	736	755	760	762	445
45°	445	448	395	389	382	344
55°	254	244	133	125	121	229
65°	137	123	27	22	22	136
75°	52	43	7	4	4	58
85°	11	8	1	0	0	13
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°	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0
2.5°	1120.3	1116.2	1118.9	1113.5	1120.3	1113.5	1114.8	1116.2	1114.8	1116.2	1117.6
5°	1108.1	1104.0	1108.1	1101.3	1108.1	1104.0	1104.0	1105.3	1105.3	1106.7	1108.1
7.5°	1091.8	1087.7	1091.8	1085.0	1093.1	1089.1	1089.1	1091.8	1090.4	1091.8	1094.5
10°	1072.8	1067.4	1071.4	1067.4	1075.5	1070.1	1072.8	1072.8	1072.8	1076.9	1079.6
12.5°	1052.5	1047.0	1052.5	1045.7	1053.8	1049.7	1051.1	1055.2	1056.5	1059.2	1060.6
15°	1032.1	1025.3	1028.0	1024.0	1032.1	1028.0	1029.4	1034.8	1034.8	1038.9	1043.0
17.5°	1006.3	1000.9	1006.3	1000.9	1007.7	1005.0	1007.7	1011.8	1011.8	1015.8	1019.9
20°	983.3	977.9	981.9	977.9	986.0	981.9	983.3	988.7	990.1	994.1	998.2
22.5°	954.8	950.7	953.4	949.4	957.5	954.8	956.2	961.6	962.9	965.7	972.4
25°	925.0	916.8	920.9	918.2	926.3	922.3	925.0	930.4	933.1	937.2	942.6
27.5°	881.6	877.5	880.2	880.2	887.0	882.9	884.3	889.7	893.8	897.8	904.6
30°	836.8	830.0	832.7	834.1	839.5	836.8	839.5	844.9	846.3	851.7	857.2
32.5°	779.8	777.1	782.6	779.8	782.6	782.6	783.9	788.0	790.7	793.4	800.2
35°	718.8	713.4	718.8	716.1	722.9	718.8	722.9	727.0	727.0	732.4	736.4
37.5°	652.4	645.6	648.3	648.3	651.0	649.6	649.6	656.4	657.8	661.9	665.9
40°	573.7	571.0	576.4	575.1	576.4	576.4	577.8	581.8	584.5	585.9	587.3
42.5°	503.2	504.5	505.9	505.9	505.9	505.9	505.9	511.3	510.0	514.0	515.4
45°	444.9	439.4	442.1	440.8	444.9	440.8	444.9	448.9	446.2	450.3	447.6
47.5°	385.2	385.2	385.2	383.8	386.5	385.2	387.9	389.2	389.2	389.2	387.9
50°	337.7	333.6	335.0	335.0	336.4	335.0	337.7	339.1	339.1	336.4	330.9
52.5°	291.6	290.2	290.2	293.0	293.0	291.6	291.6	291.6	291.6	287.5	284.8
55°	253.6	250.9	252.3	252.3	252.3	252.3	253.6	252.3	252.3	248.2	244.1
57.5°	219.7	217.0	217.0	217.0	218.4	217.0	217.0	217.0	215.6	211.6	206.2
60°	187.2	185.8	187.2	187.2	188.5	187.2	187.2	187.2	184.5	180.4	175.0
62.5°	160.0	160.0	160.0	161.4	161.4	160.0	160.0	158.7	157.3	151.9	146.5
65°	137.0	135.6	137.0	137.0	138.3	138.3	137.0	135.6	134.3	128.8	123.4
67.5°	113.9	112.6	113.9	113.9	115.3	113.9	113.9	113.9	109.9	107.1	101.7
70°	92.2	90.9	90.9	90.9	92.2	89.5	90.9	90.9	88.2	84.1	78.7
72.5°	70.5	70.5	70.5	70.5	70.5	70.5	69.2	69.2	66.5	62.4	59.7
75°	51.5	51.5	52.9	52.9	51.5	51.5	51.5	50.2	48.8	46.1	43.4
77.5°	38.0	38.0	38.0	38.0	36.6	36.6	36.6	35.3	33.9	32.6	29.8
80°	27.1	27.1	27.1	25.8	27.1	25.8	25.8	25.8	23.1	21.7	20.3
82.5°	19.0	17.6	17.6	17.6	17.6	17.6	17.6	16.3	16.3	14.9	13.6
85°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	9.5	8.1	8.1
87.5°	5.4	6.8	6.8	6.8	6.8	6.8	6.8	5.4	5.4	5.4	4.1
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°	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0
2.5°	1117.6	1117.6	1120.3	1116.2	1123.0	1118.9	1117.6	1124.3	1120.3	1118.9	1121.6
5°	1108.1	1109.4	1110.8	1108.1	1114.8	1110.8	1110.8	1117.6	1114.8	1113.5	1117.6
7.5°	1095.9	1097.2	1099.9	1098.6	1104.0	1101.3	1102.6	1109.4	1106.7	1106.7	1110.8
10°	1080.9	1083.6	1086.4	1086.4	1093.1	1090.4	1090.4	1098.6	1095.9	1097.2	1102.6
12.5°	1063.3	1067.4	1071.4	1072.8	1079.6	1075.5	1076.9	1086.4	1085.0	1086.4	1091.8
15°	1044.3	1049.7	1053.8	1053.8	1061.9	1057.9	1061.9	1071.4	1068.7	1074.2	1080.9
17.5°	1022.6	1028.0	1033.5	1034.8	1043.0	1040.2	1045.7	1055.2	1055.2	1057.9	1066.0
20°	1002.3	1009.1	1011.8	1015.8	1024.0	1022.6	1025.3	1036.2	1036.2	1040.2	1048.4
22.5°	975.1	981.9	987.4	991.4	998.2	998.2	1002.3	1011.8	1011.8	1014.5	1022.6
25°	945.3	953.4	957.5	961.6	968.4	967.0	971.1	979.2	980.6	983.3	991.4
27.5°	907.3	914.1	919.5	922.3	931.7	926.3	930.4	939.9	938.5	941.2	948.0
30°	859.9	866.6	872.1	872.1	880.2	880.2	884.3	888.3	888.3	891.1	896.5
32.5°	804.3	812.4	812.4	816.5	821.9	816.5	821.9	827.3	824.6	828.7	832.7
35°	740.5	744.6	745.9	745.9	750.0	748.7	747.3	751.4	748.7	755.4	759.5
37.5°	663.2	668.6	665.9	668.6	667.3	663.2	663.2	670.0	664.6	665.9	670.0
40°	588.6	588.6	587.3	580.5	581.8	577.8	576.4	577.8	572.3	571.0	576.4
42.5°	511.3	510.0	505.9	496.4	497.7	491.0	485.5	485.5	482.8	481.5	482.8
45°	442.1	438.1	431.3	420.4	417.7	412.3	401.5	398.7	394.7	394.7	396.0
47.5°	378.4	373.0	362.1	349.9	343.1	336.4	325.5	321.4	314.7	311.9	314.7
50°	325.5	316.0	302.4	284.8	278.0	269.9	259.0	252.3	245.5	242.8	241.4
52.5°	276.7	263.1	249.6	227.9	222.4	214.3	199.4	192.6	185.8	180.4	180.4
55°	234.6	222.4	203.4	183.1	175.0	166.8	151.9	142.4	135.6	132.9	130.2
57.5°	196.7	183.1	165.5	143.8	135.6	127.5	112.6	103.1	96.3	92.2	89.5
60°	165.5	150.5	132.9	113.9	104.4	96.3	81.4	71.9	65.1	61.0	58.3
62.5°	135.6	123.4	105.8	88.2	80.0	71.9	59.7	50.2	43.4	40.7	36.6
65°	113.9	101.7	85.4	70.5	63.7	55.6	44.8	36.6	31.2	27.1	24.4
67.5°	92.2	82.7	69.2	55.6	48.8	43.4	33.9	27.1	21.7	19.0	17.6
70°	73.2	63.7	52.9	42.0	38.0	32.6	25.8	19.0	16.3	13.6	12.2
72.5°	54.3	47.5	39.3	31.2	27.1	24.4	17.6	14.9	10.9	9.5	8.1
75°	39.3	33.9	28.5	21.7	19.0	17.6	13.6	9.5	8.1	6.8	5.4
77.5°	27.1	24.4	19.0	14.9	13.6	12.2	9.5	6.8	5.4	4.1	4.1
80°	17.6	14.9	12.2	9.5	9.5	8.1	5.4	4.1	4.1	2.7	2.7
82.5°	10.9	9.5	8.1	6.8	5.4	5.4	4.1	2.7	2.7	1.4	1.4
85°	6.8	5.4	4.1	4.1	2.7	2.7	2.7	1.4	1.4	1.4	1.4
87.5°	2.7	2.7	2.7	1.4	1.4	1.4	1.4	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°	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0
2.5°	1121.6	1121.6	1124.3	1120.3	1123.0	1123.0	1125.7	1120.3	1123.0	1124.3	1127.0
5°	1116.2	1117.6	1120.3	1118.9	1120.3	1120.3	1123.0	1116.2	1121.6	1121.6	1125.7
7.5°	1110.8	1110.8	1113.5	1112.1	1114.8	1116.2	1118.9	1113.5	1118.9	1118.9	1123.0
10°	1104.0	1104.0	1108.1	1106.7	1110.8	1112.1	1116.2	1110.8	1116.2	1117.6	1121.6
12.5°	1094.5	1095.9	1099.9	1099.9	1104.0	1106.7	1110.8	1108.1	1114.8	1116.2	1121.6
15°	1083.6	1086.4	1091.8	1090.4	1094.5	1098.6	1104.0	1099.9	1109.4	1112.1	1117.6
17.5°	1070.1	1072.8	1076.9	1076.9	1080.9	1083.6	1090.4	1087.7	1095.9	1097.2	1104.0
20°	1049.7	1053.8	1059.2	1057.9	1061.9	1064.7	1070.1	1067.4	1075.5	1078.2	1085.0
22.5°	1025.3	1028.0	1032.1	1032.1	1036.2	1038.9	1044.3	1040.2	1048.4	1049.7	1055.2
25°	992.8	995.5	998.2	999.6	1003.6	1005.0	1007.7	1005.0	1011.8	1013.1	1019.9
27.5°	950.7	952.1	956.2	956.2	958.9	960.2	964.3	958.9	968.4	968.4	972.4
30°	900.6	899.2	904.6	901.9	904.6	904.6	908.7	906.0	912.8	910.0	914.1
32.5°	834.1	836.8	836.8	834.1	839.5	838.2	838.2	835.5	839.5	840.9	843.6
35°	756.8	760.9	760.9	762.2	763.6	759.5	760.9	752.7	759.5	760.9	762.2
37.5°	672.7	668.6	671.3	667.3	674.1	665.9	665.9	660.5	665.9	665.9	667.3
40°	576.4	575.1	577.8	575.1	573.7	572.3	569.6	565.6	571.0	568.3	572.3
42.5°	485.5	484.2	484.2	481.5	480.1	480.1	477.4	474.7	473.3	473.3	480.1
45°	392.0	394.7	392.0	390.6	393.3	390.6	392.0	386.5	389.2	386.5	389.2
47.5°	313.3	314.7	311.9	309.2	313.3	309.2	309.2	305.2	310.6	310.6	307.9
50°	242.8	241.4	238.7	241.4	240.1	240.1	240.1	236.0	238.7	234.6	237.3
52.5°	179.0	177.7	177.7	176.3	177.7	176.3	176.3	175.0	175.0	173.6	175.0
55°	130.2	128.8	126.1	126.1	126.1	127.5	126.1	124.8	124.8	123.4	124.8
57.5°	88.2	85.4	85.4	85.4	85.4	84.1	84.1	82.7	84.1	82.7	84.1
60°	57.0	57.0	54.3	54.3	54.3	54.3	54.3	52.9	54.3	54.3	54.3
62.5°	35.3	35.3	33.9	32.6	33.9	32.6	32.6	32.6	33.9	32.6	33.9
65°	23.1	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
67.5°	16.3	14.9	14.9	14.9	14.9	14.9	14.9	13.6	14.9	14.9	14.9
70°	10.9	10.9	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
75°	5.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	4.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	2.7	2.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	1.4	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	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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: P252259

CATALOG NUMBER: LD6B20D010 EU6B10208030 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0	1123.0
2.5°	1123.0	1124.3	1121.6	1123.0	1120.3	1123.0	1124.3	1127.0
5°	1120.3	1121.6	1118.9	1121.6	1118.9	1121.6	1123.0	1125.7
7.5°	1117.6	1120.3	1117.6	1120.3	1117.6	1120.3	1121.6	1124.3
10°	1117.6	1121.6	1118.9	1123.0	1118.9	1121.6	1124.3	1125.7
12.5°	1117.6	1121.6	1120.3	1123.0	1121.6	1124.3	1127.0	1129.8
15°	1114.8	1118.9	1116.2	1120.3	1118.9	1120.3	1125.7	1125.7
17.5°	1099.9	1104.0	1104.0	1106.7	1106.7	1110.8	1113.5	1116.2
20°	1080.9	1085.0	1083.6	1087.7	1087.7	1091.8	1094.5	1097.2
22.5°	1052.5	1057.9	1056.5	1060.6	1059.2	1061.9	1067.4	1066.0
25°	1015.8	1022.6	1021.3	1024.0	1022.6	1022.6	1025.3	1026.7
27.5°	971.1	975.1	973.8	976.5	973.8	976.5	979.2	980.6
30°	912.8	915.5	914.1	915.5	914.1	916.8	918.2	920.9
32.5°	842.2	846.3	842.2	844.9	843.6	843.6	849.0	846.3
35°	758.1	759.5	760.9	760.9	758.1	759.5	762.2	762.2
37.5°	664.6	671.3	663.2	667.3	665.9	665.9	665.9	670.0
40°	566.9	568.3	565.6	565.6	565.6	564.2	569.6	568.3
42.5°	474.7	476.0	474.7	470.6	472.0	472.0	476.0	470.6
45°	385.2	387.9	386.5	386.5	383.8	383.8	385.2	382.5
47.5°	305.2	307.9	303.8	305.2	302.4	305.2	303.8	306.5
50°	231.9	234.6	233.3	234.6	234.6	231.9	236.0	230.6
52.5°	173.6	175.0	173.6	172.2	170.9	170.9	173.6	172.2
55°	123.4	122.1	122.1	122.1	123.4	123.4	122.1	120.7
57.5°	82.7	82.7	81.4	81.4	82.7	80.0	81.4	80.0
60°	52.9	52.9	52.9	52.9	51.5	52.9	52.9	52.9
62.5°	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6
65°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
67.5°	13.6	14.9	14.9	14.9	13.6	13.6	13.6	13.6
70°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
72.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.4	1.4	1.4	1.4	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)