

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: P252159

Luminaire Tested: **LD6B20D010 EU6B10209024 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252159
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: LD6B20D010 EU6B10209024 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1874.0 lumens
Efficiency: N/A
Efficacy: 90.1 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

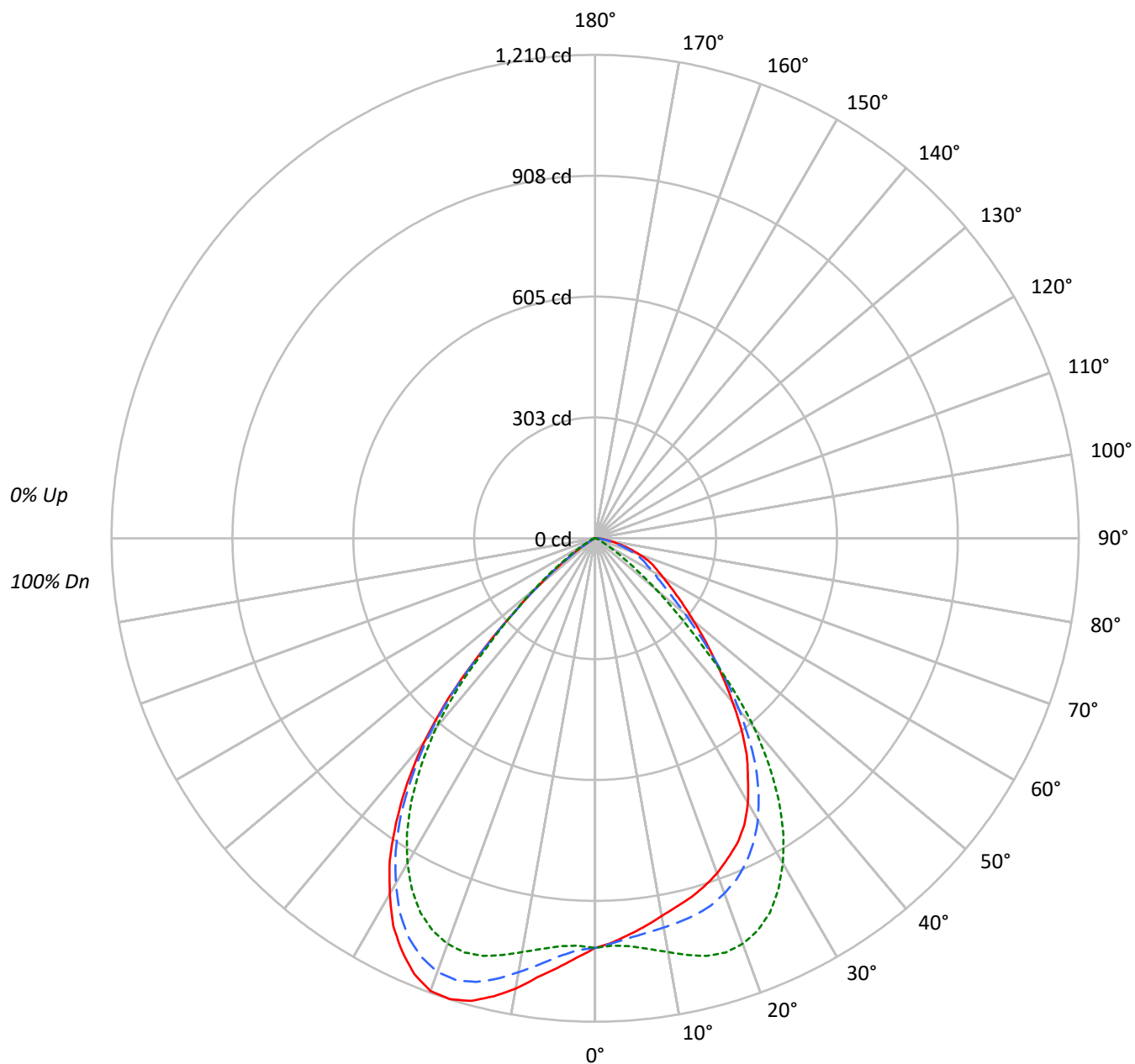
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	66885	66885	66885
5°	65149	67140	70670
10°	63571	69672	75840
15°	62828	73087	80963
20°	61922	74989	83702
25°	60604	74433	82200
30°	57592	70738	77382
35°	52693	63779	69083
40°	45581	52675	56678
45°	38437	34544	37081
50°	32631	19995	18797
55°	28322	9589	7245
60°	25574	4476	1788
65°	24808	2578	602
70°	22242	2060	553
75°	18275	1487	252
80°	13638	751	0
85°	11752	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	5.3
10°-20°	301.8	16.1
20°-30°	461.1	24.6
30°-40°	482.3	25.7
40°-50°	312.9	16.7
50°-60°	124.2	6.6
60°-70°	58.9	3.1
70°-80°	28.0	1.5
80°-90°	5.7	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°	861.9	46.0
0°-40°	1344.2	71.7
0°-60°	1781.3	95.1
0°-90°	1874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1874.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1025	1025	1025	1025	1025	
5°	995	1004	1025	1051	1079	94
15°	930	975	1082	1150	1199	262
25°	842	895	1034	1104	1142	386
35°	662	702	801	848	867	409
45°	417	413	374	397	402	324
55°	249	212	84	66	64	226
65°	161	133	17	4	4	157
75°	72	59	6	2	1	78
85°	16	10	0	0	0	18
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°	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2
2.5°	1012.5	1014.4	1003.7	1000.7	1008.6	1011.5	1012.5	1009.5	1010.5	1014.4	1014.4
5°	994.8	996.8	987.0	984.1	991.9	993.9	996.8	995.8	998.8	1004.6	1003.7
7.5°	978.2	981.1	970.3	966.4	976.2	981.1	983.1	983.1	987.0	994.8	995.8
10°	959.6	963.5	953.7	951.7	962.5	967.4	968.4	970.3	976.2	987.0	989.0
12.5°	943.9	947.8	940.9	938.0	949.8	954.7	956.6	960.5	967.4	981.1	983.1
15°	930.2	933.1	925.3	923.3	935.1	940.9	941.9	947.8	956.6	972.3	975.2
17.5°	912.5	914.5	908.6	906.6	918.4	924.3	925.3	932.1	942.9	958.6	963.5
20°	891.9	893.9	888.0	886.0	897.8	904.7	905.6	911.5	924.3	940.9	945.8
22.5°	867.4	871.3	864.5	862.5	874.3	880.2	883.1	888.0	900.7	917.4	924.3
25°	841.9	841.9	837.0	836.1	846.8	853.7	852.7	859.6	872.3	889.0	894.9
27.5°	808.6	807.6	802.7	801.8	813.5	819.4	817.4	824.3	836.1	852.7	858.6
30°	764.5	766.5	759.6	757.6	767.4	777.3	776.3	783.1	794.9	810.6	814.5
32.5°	711.6	713.5	712.6	709.6	718.4	723.3	726.3	731.2	741.0	757.6	761.6
35°	661.6	658.7	654.7	654.7	663.6	671.4	668.5	674.3	684.1	700.8	701.8
37.5°	599.8	598.9	596.9	594.9	604.7	606.7	607.7	611.6	620.4	634.2	632.2
40°	535.2	536.1	535.2	531.2	537.1	545.0	544.0	545.9	553.8	563.6	560.6
42.5°	474.4	474.4	474.4	470.5	477.3	481.2	483.2	482.2	484.2	493.0	489.1
45°	416.6	417.5	416.6	415.6	416.6	418.5	416.6	415.6	415.6	418.5	412.6
47.5°	366.6	366.6	363.6	360.7	363.6	364.6	361.7	358.7	357.8	356.8	347.0
50°	321.5	320.5	319.5	314.6	317.6	318.5	314.6	312.7	308.7	303.8	292.1
52.5°	282.3	281.3	280.3	275.4	277.4	278.4	274.4	270.5	265.6	261.7	247.0
55°	249.0	248.0	248.0	245.0	243.1	245.0	241.1	238.2	231.3	226.4	211.7
57.5°	220.5	220.5	218.6	215.6	216.6	216.6	212.7	208.8	202.9	197.0	185.2
60°	196.0	196.0	196.0	193.1	193.1	193.1	191.1	187.2	182.3	176.4	164.7
62.5°	176.4	176.4	175.4	172.5	173.5	173.5	171.5	167.6	162.7	158.8	147.0
65°	160.7	160.7	160.7	157.8	157.8	158.8	156.8	152.9	149.0	144.1	133.3
67.5°	141.1	140.2	140.2	138.2	139.2	140.2	138.2	135.3	130.4	127.4	117.6
70°	116.6	117.6	118.6	115.7	116.6	116.6	115.7	112.7	109.8	106.8	98.0
72.5°	95.1	95.1	94.1	93.1	93.1	94.1	92.1	89.2	87.2	85.3	78.4
75°	72.5	71.6	72.5	70.6	70.6	70.6	68.6	67.6	66.6	63.7	58.8
77.5°	52.9	51.9	51.9	50.0	51.0	51.0	50.0	48.0	46.1	45.1	41.2
80°	36.3	36.3	36.3	35.3	35.3	34.3	34.3	33.3	31.4	30.4	28.4
82.5°	24.5	24.5	24.5	23.5	23.5	23.5	22.5	21.6	20.6	19.6	17.6
85°	15.7	15.7	15.7	14.7	14.7	14.7	13.7	13.7	12.7	11.8	9.8
87.5°	8.8	8.8	8.8	7.8	7.8	7.8	7.8	7.8	6.9	5.9	4.9
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°	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2
2.5°	1021.3	1007.6	1016.4	1016.4	1013.5	1021.3	1026.2	1030.1	1029.1	1020.3	1019.3
5°	1013.5	1001.7	1011.5	1012.5	1009.5	1020.3	1027.2	1032.1	1033.1	1025.2	1026.2
7.5°	1007.6	997.8	1010.5	1014.4	1013.5	1023.3	1031.1	1038.9	1042.9	1037.0	1038.0
10°	1004.6	996.8	1010.5	1016.4	1017.4	1028.2	1039.9	1050.7	1055.6	1051.7	1054.6
12.5°	1000.7	995.8	1011.5	1020.3	1024.2	1035.0	1049.7	1062.5	1070.3	1068.4	1074.2
15°	996.8	992.9	1011.5	1024.2	1029.1	1038.9	1055.6	1074.2	1083.1	1082.1	1089.9
17.5°	987.0	986.0	1005.6	1019.3	1026.2	1038.0	1053.6	1076.2	1085.0	1087.0	1096.8
20°	971.3	971.3	992.9	1007.6	1015.4	1026.2	1045.8	1067.4	1078.2	1080.1	1090.9
22.5°	949.8	951.7	972.3	987.0	998.8	1006.6	1027.2	1049.7	1059.5	1062.5	1074.2
25°	921.3	923.3	942.9	957.6	970.3	979.2	998.8	1019.3	1031.1	1034.0	1042.9
27.5°	884.1	888.0	906.6	921.3	932.1	938.0	958.6	980.1	989.0	991.9	1000.7
30°	841.0	841.9	860.6	873.3	884.1	889.0	906.6	929.2	936.0	939.0	951.7
32.5°	788.0	787.1	804.7	816.5	825.3	831.2	849.8	864.5	871.3	876.2	883.1
35°	724.3	723.3	736.1	749.8	756.7	758.6	777.3	792.9	796.9	800.8	809.6
37.5°	652.8	652.8	663.6	670.4	678.3	681.2	690.0	707.7	714.5	713.5	720.4
40°	577.3	573.4	581.2	588.1	590.0	591.0	599.8	613.6	618.5	618.5	623.4
42.5°	497.9	492.0	493.0	496.9	498.9	492.0	497.9	506.7	503.8	507.7	508.7
45°	413.6	404.8	400.9	392.1	394.0	387.2	383.2	385.2	384.2	374.4	376.4
47.5°	345.0	329.3	322.5	309.7	306.8	298.9	294.0	285.2	277.4	277.4	272.5
50°	287.2	271.5	257.8	243.1	238.2	231.3	220.5	208.8	202.9	197.0	192.1
52.5°	241.1	224.5	207.8	192.1	185.2	176.4	161.7	150.0	139.2	133.3	127.4
55°	203.9	185.2	167.6	150.9	142.1	133.3	118.6	104.9	92.1	84.3	79.4
57.5°	175.4	157.8	139.2	121.5	113.7	103.9	88.2	73.5	61.7	52.9	48.0
60°	154.9	137.2	120.6	101.9	94.1	84.3	67.6	53.9	42.1	34.3	28.4
62.5°	137.2	121.5	103.9	87.2	79.4	69.6	53.9	40.2	29.4	21.6	16.7
65°	124.5	108.8	94.1	77.4	70.6	60.8	46.1	33.3	23.5	16.7	11.8
67.5°	109.8	96.1	81.4	67.6	60.8	52.9	39.2	28.4	19.6	13.7	9.8
70°	92.1	81.4	68.6	55.9	51.0	44.1	32.3	23.5	15.7	10.8	7.8
72.5°	73.5	64.7	54.9	45.1	41.2	34.3	26.5	18.6	11.8	7.8	5.9
75°	55.9	49.0	41.2	34.3	30.4	26.5	19.6	13.7	8.8	5.9	3.9
77.5°	38.2	35.3	29.4	23.5	21.6	18.6	12.7	8.8	5.9	3.9	2.0
80°	26.5	23.5	19.6	15.7	13.7	11.8	7.8	5.9	2.9	2.0	1.0
82.5°	16.7	13.7	11.8	9.8	8.8	6.9	4.9	2.9	2.0	1.0	1.0
85°	8.8	7.8	6.9	4.9	4.9	3.9	2.9	2.0	1.0	0.0	0.0
87.5°	4.9	3.9	2.9	2.0	2.0	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2
2.5°	1031.1	1031.1	1030.1	1041.9	1028.2	1041.9	1035.0	1041.9	1032.1	1031.1	1032.1
5°	1038.9	1041.9	1042.9	1053.6	1040.9	1057.6	1051.7	1057.6	1050.7	1052.7	1055.6
7.5°	1054.6	1059.5	1058.6	1072.3	1059.5	1078.2	1074.2	1083.1	1076.2	1078.2	1082.1
10°	1072.3	1078.2	1079.1	1092.9	1081.1	1103.6	1098.7	1108.5	1102.7	1105.6	1110.5
12.5°	1092.9	1099.7	1100.7	1116.4	1103.6	1127.2	1124.2	1134.0	1129.1	1132.1	1137.9
15°	1108.5	1118.3	1120.3	1136.0	1122.3	1146.8	1144.8	1157.5	1149.7	1154.6	1159.5
17.5°	1116.4	1125.2	1129.1	1143.8	1132.1	1156.6	1154.6	1165.4	1159.5	1164.4	1170.3
20°	1111.5	1122.3	1125.2	1139.9	1128.1	1152.6	1149.7	1160.5	1154.6	1158.5	1164.4
22.5°	1093.8	1104.6	1108.5	1122.3	1111.5	1134.0	1133.0	1142.8	1135.0	1139.9	1144.8
25°	1062.5	1074.2	1076.2	1088.9	1077.2	1100.7	1098.7	1109.5	1103.6	1106.6	1113.4
27.5°	1017.4	1031.1	1034.0	1044.8	1036.0	1055.6	1055.6	1064.4	1057.6	1057.6	1064.4
30°	963.5	977.2	979.2	988.0	980.1	997.8	998.8	1007.6	996.8	1002.7	1003.7
32.5°	897.8	906.6	912.5	920.4	908.6	931.1	928.2	935.1	929.2	929.2	934.1
35°	818.4	829.2	832.1	841.9	832.1	849.8	849.8	853.7	847.8	847.8	855.7
37.5°	732.2	740.0	741.0	750.8	742.9	757.6	756.7	759.6	753.7	757.6	757.6
40°	631.2	637.1	639.1	644.0	643.0	653.8	652.8	654.7	651.8	652.8	654.7
42.5°	513.6	521.4	525.4	529.3	523.4	538.1	535.2	538.1	537.1	538.1	541.0
45°	378.3	384.2	387.2	388.1	386.2	395.0	401.9	396.0	397.0	395.0	398.9
47.5°	273.5	274.4	272.5	278.4	273.5	277.4	279.3	280.3	274.4	273.5	277.4
50°	187.2	192.1	185.2	188.2	187.2	191.1	189.2	190.1	184.3	187.2	185.2
52.5°	124.5	123.5	121.5	122.5	120.6	120.6	120.6	122.5	118.6	116.6	114.7
55°	75.5	73.5	69.6	68.6	68.6	69.6	67.6	65.7	65.7	64.7	64.7
57.5°	44.1	41.2	39.2	38.2	36.3	35.3	34.3	34.3	32.3	32.3	32.3
60°	24.5	21.6	19.6	17.6	17.6	16.7	15.7	14.7	14.7	14.7	13.7
62.5°	12.7	10.8	8.8	7.8	7.8	6.9	5.9	5.9	5.9	5.9	4.9
65°	8.8	6.9	5.9	4.9	4.9	3.9	3.9	3.9	3.9	3.9	3.9
67.5°	6.9	5.9	4.9	3.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9
70°	5.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	3.9	3.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P252159

CATALOG NUMBER: LD6B20D010 EU6B10209024 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2	1025.2
2.5°	1040.9	1039.9	1040.9	1042.9	1038.9	1050.7	1044.8	1050.7
5°	1063.5	1064.4	1065.4	1068.4	1063.5	1078.2	1070.3	1079.1
7.5°	1092.9	1093.8	1094.8	1097.8	1094.8	1109.5	1100.7	1108.5
10°	1123.2	1125.2	1125.2	1130.1	1127.2	1140.9	1135.0	1144.8
12.5°	1151.7	1153.6	1155.6	1158.5	1156.6	1171.3	1166.4	1174.2
15°	1174.2	1178.1	1179.1	1183.0	1181.1	1196.8	1190.9	1198.7
17.5°	1185.0	1188.9	1188.9	1193.8	1191.8	1208.5	1200.7	1209.5
20°	1179.1	1182.0	1183.0	1187.9	1186.0	1202.6	1194.8	1205.6
22.5°	1160.5	1161.5	1162.4	1167.3	1166.4	1181.1	1174.2	1181.1
25°	1126.2	1129.1	1128.1	1132.1	1132.1	1143.8	1136.0	1141.9
27.5°	1077.2	1080.1	1080.1	1085.0	1081.1	1092.9	1085.0	1093.8
30°	1017.4	1020.3	1018.4	1022.3	1018.4	1030.1	1024.2	1027.2
32.5°	945.8	945.8	946.8	947.8	945.8	956.6	950.7	956.6
35°	860.6	862.5	863.5	864.5	862.5	870.4	863.5	867.4
37.5°	764.5	769.4	768.4	769.4	766.5	776.3	770.4	772.3
40°	661.6	661.6	660.6	662.6	659.6	667.5	663.6	665.5
42.5°	542.0	545.0	541.0	545.9	538.1	548.9	545.0	542.0
45°	406.8	402.8	401.9	402.8	399.9	400.9	403.8	401.9
47.5°	277.4	277.4	275.4	272.5	276.4	277.4	273.5	273.5
50°	186.2	186.2	184.3	183.3	185.2	184.3	182.3	185.2
52.5°	118.6	114.7	114.7	116.6	114.7	112.7	115.7	113.7
55°	64.7	62.7	62.7	64.7	62.7	62.7	61.7	63.7
57.5°	31.4	32.3	31.4	31.4	31.4	31.4	30.4	31.4
60°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
62.5°	5.9	5.9	4.9	4.9	4.9	4.9	4.9	4.9
65°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
67.5°	2.9	2.9	2.9	2.9	2.9	3.9	2.9	2.9
70°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
72.5°	2.9	2.9	3.9	3.9	3.9	3.9	3.9	3.9
75°	2.0	2.0	2.0	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



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)