

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: P252165

Luminaire Tested: **LD6B20D010 EU6B10209727 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252165
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 EU6B10209727 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1853.0 lumens
Efficiency: N/A
Efficacy: 89.1 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

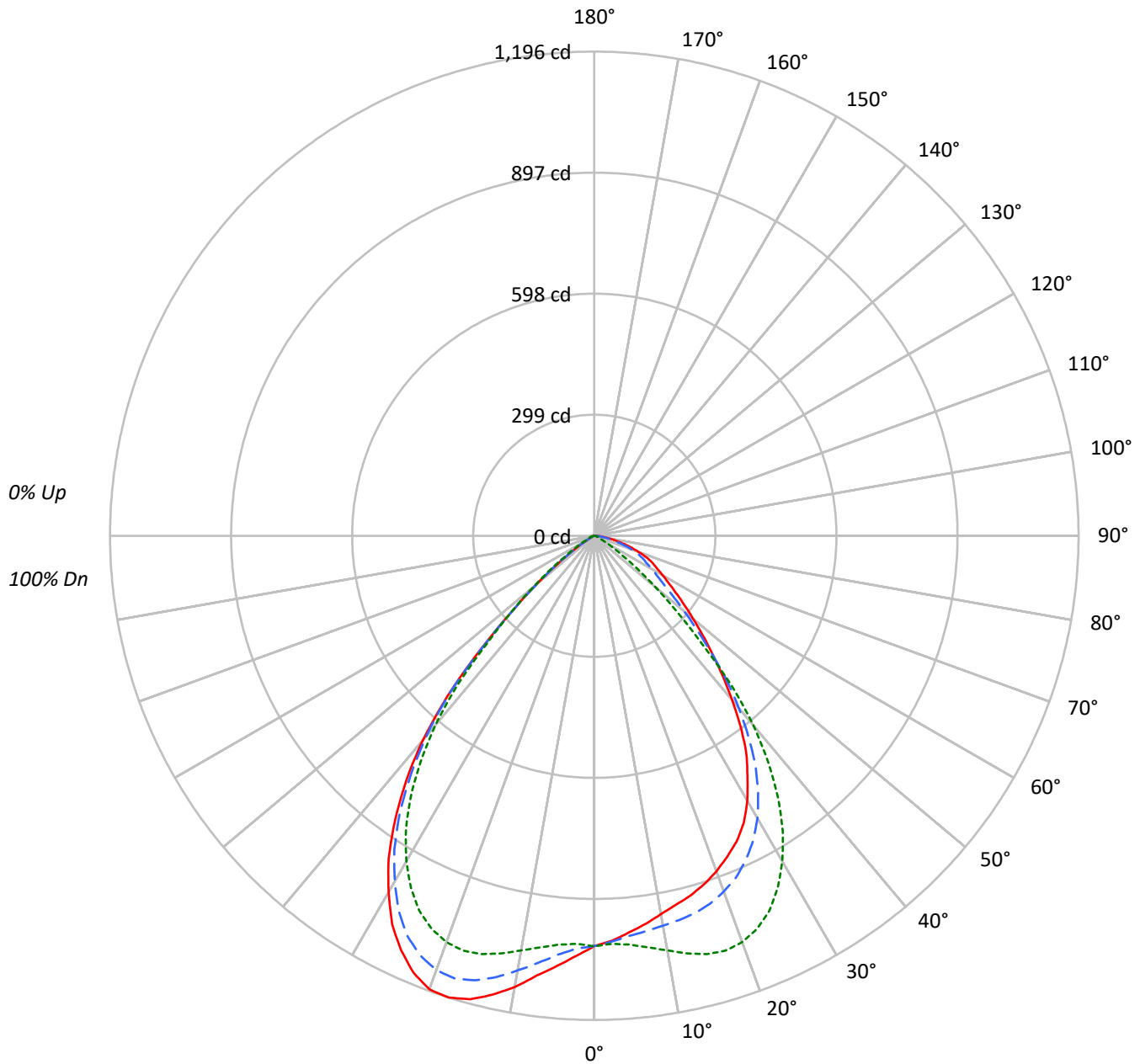
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	66134	66134	66134
5°	64422	66387	69878
10°	62855	68890	74992
15°	62118	72263	80058
20°	61228	74149	82765
25°	59928	73605	81278
30°	56945	69947	76516
35°	52103	63062	68311
40°	45070	52079	56047
45°	38004	34156	36666
50°	32266	19771	18594
55°	28004	9475	7166
60°	25287	4423	1775
65°	24530	2547	602
70°	21994	2041	553
75°	18073	1462	252
80°	13488	714	0
85°	11603	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.9	5.3
10°-20°	298.4	16.1
20°-30°	456.0	24.6
30°-40°	476.9	25.7
40°-50°	309.4	16.7
50°-60°	122.8	6.6
60°-70°	58.3	3.1
70°-80°	27.7	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°	852.3	46.0
0°-40°	1329.2	71.7
0°-60°	1761.4	95.1
0°-90°	1853.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1853.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1014	1014	1014	1014	1014	
5°	984	992	1014	1039	1067	93
15°	920	964	1070	1137	1185	259
25°	832	885	1022	1091	1129	381
35°	654	694	792	838	858	405
45°	412	408	370	392	397	321
55°	246	209	83	65	63	223
65°	159	132	16	4	4	155
75°	72	58	6	2	1	77
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°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1001.1	1003.1	992.4	989.5	997.3	1000.2	1001.1	998.2	999.2	1003.1	1003.1
5°	983.7	985.6	975.9	973.0	980.8	982.7	985.6	984.7	987.6	993.4	992.4
7.5°	967.2	970.1	959.5	955.6	965.3	970.1	972.1	972.1	975.9	983.7	984.7
10°	948.8	952.7	943.0	941.1	951.7	956.6	957.5	959.5	965.3	975.9	977.9
12.5°	933.3	937.2	930.4	927.5	939.1	944.0	945.9	949.8	956.6	970.1	972.1
15°	919.7	922.6	914.9	912.9	924.6	930.4	931.4	937.2	945.9	961.4	964.3
17.5°	902.3	904.2	898.4	896.5	908.1	913.9	914.9	921.7	932.3	947.8	952.7
20°	881.9	883.9	878.1	876.1	887.7	894.5	895.5	901.3	913.9	930.4	935.2
22.5°	857.7	861.6	854.8	852.9	864.5	870.3	873.2	878.1	890.7	907.1	913.9
25°	832.5	832.5	827.7	826.7	837.4	844.1	843.2	849.9	862.5	879.0	884.8
27.5°	799.6	798.6	793.7	792.8	804.4	810.2	808.3	815.1	826.7	843.2	849.0
30°	755.9	757.9	751.1	749.2	758.8	768.5	767.6	774.4	786.0	801.5	805.4
32.5°	703.6	705.5	704.6	701.7	710.4	715.2	718.1	723.0	732.7	749.2	753.0
35°	654.2	651.3	647.4	647.4	656.1	663.9	661.0	666.8	676.5	692.9	693.9
37.5°	593.1	592.2	590.2	588.3	598.0	599.9	600.9	604.8	613.5	627.0	625.1
40°	529.2	530.1	529.2	525.3	531.1	538.9	537.9	539.8	547.6	557.3	554.4
42.5°	469.1	469.1	469.1	465.2	472.0	475.9	477.8	476.8	478.8	487.5	483.6
45°	411.9	412.9	411.9	410.9	411.9	413.8	411.9	410.9	410.9	413.8	408.0
47.5°	362.5	362.5	359.6	356.6	359.6	360.5	357.6	354.7	353.7	352.8	343.1
50°	317.9	316.9	315.9	311.1	314.0	315.0	311.1	309.2	305.3	300.4	288.8
52.5°	279.1	278.1	277.2	272.3	274.3	275.2	271.4	267.5	262.6	258.8	244.2
55°	246.2	245.2	245.2	242.3	240.4	242.3	238.4	235.5	228.7	223.9	209.3
57.5°	218.1	218.1	216.1	213.2	214.2	214.2	210.3	206.4	200.6	194.8	183.2
60°	193.8	193.8	193.8	190.9	190.9	190.9	189.0	185.1	180.3	174.4	162.8
62.5°	174.4	174.4	173.5	170.6	171.5	171.5	169.6	165.7	160.9	157.0	145.4
65°	158.9	158.9	158.9	156.0	156.0	157.0	155.1	151.2	147.3	142.5	131.8
67.5°	139.6	138.6	138.6	136.7	137.6	138.6	136.7	133.7	128.9	126.0	116.3
70°	115.3	116.3	117.3	114.4	115.3	115.3	114.4	111.5	108.5	105.6	96.9
72.5°	94.0	94.0	93.0	92.1	92.1	93.0	91.1	88.2	86.3	84.3	77.5
75°	71.7	70.7	71.7	69.8	69.8	69.8	67.8	66.9	65.9	63.0	58.1
77.5°	52.3	51.4	51.4	49.4	50.4	50.4	49.4	47.5	45.6	44.6	40.7
80°	35.9	35.9	35.9	34.9	34.9	33.9	33.9	33.0	31.0	30.0	28.1
82.5°	24.2	24.2	24.2	23.3	23.3	23.3	22.3	21.3	20.4	19.4	17.4
85°	15.5	15.5	15.5	14.5	14.5	14.5	13.6	13.6	12.6	11.6	9.7
87.5°	8.7	8.7	8.7	7.8	7.8	7.8	7.8	7.8	6.8	5.8	4.8
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°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1009.9	996.3	1005.0	1005.0	1002.1	1009.9	1014.7	1018.6	1017.6	1008.9	1007.9
5°	1002.1	990.5	1000.2	1001.1	998.2	1008.9	1015.7	1020.5	1021.5	1013.7	1014.7
7.5°	996.3	986.6	999.2	1003.1	1002.1	1011.8	1019.6	1027.3	1031.2	1025.4	1026.3
10°	993.4	985.6	999.2	1005.0	1006.0	1016.6	1028.3	1038.9	1043.8	1039.9	1042.8
12.5°	989.5	984.7	1000.2	1008.9	1012.8	1023.4	1038.0	1050.6	1058.3	1056.4	1062.2
15°	985.6	981.8	1000.2	1012.8	1017.6	1027.3	1043.8	1062.2	1070.9	1069.9	1077.7
17.5°	975.9	975.0	994.4	1007.9	1014.7	1026.3	1041.8	1064.1	1072.9	1074.8	1084.5
20°	960.4	960.4	981.8	996.3	1004.0	1014.7	1034.1	1055.4	1066.1	1068.0	1078.7
22.5°	939.1	941.1	961.4	975.9	987.6	995.3	1015.7	1038.0	1047.7	1050.6	1062.2
25°	911.0	912.9	932.3	946.9	959.5	968.2	987.6	1007.9	1019.6	1022.5	1031.2
27.5°	874.2	878.1	896.5	911.0	921.7	927.5	947.8	969.2	977.9	980.8	989.5
30°	831.5	832.5	850.9	863.5	874.2	879.0	896.5	918.8	925.5	928.5	941.1
32.5°	779.2	778.2	795.7	807.3	816.0	821.8	840.3	854.8	861.6	866.4	873.2
35°	716.2	715.2	727.8	741.4	748.2	750.1	768.5	784.0	787.9	791.8	800.5
37.5°	645.5	645.5	656.1	662.9	670.7	673.6	682.3	699.7	706.5	705.5	712.3
40°	570.8	567.0	574.7	581.5	583.4	584.4	593.1	606.7	611.5	611.5	616.4
42.5°	492.3	486.5	487.5	491.4	493.3	486.5	492.3	501.1	498.1	502.0	503.0
45°	409.0	400.3	396.4	387.7	389.6	382.8	378.9	380.9	379.9	370.2	372.2
47.5°	341.1	325.6	318.9	306.3	303.3	295.6	290.7	282.0	274.3	274.3	269.4
50°	284.0	268.5	254.9	240.4	235.5	228.7	218.1	206.4	200.6	194.8	190.0
52.5°	238.4	221.9	205.5	190.0	183.2	174.4	159.9	148.3	137.6	131.8	126.0
55°	201.6	183.2	165.7	149.3	140.5	131.8	117.3	103.7	91.1	83.3	78.5
57.5°	173.5	156.0	137.6	120.2	112.4	102.7	87.2	72.7	61.1	52.3	47.5
60°	153.1	135.7	119.2	100.8	93.0	83.3	66.9	53.3	41.7	33.9	28.1
62.5°	135.7	120.2	102.7	86.3	78.5	68.8	53.3	39.7	29.1	21.3	16.5
65°	123.1	107.6	93.0	76.6	69.8	60.1	45.6	33.0	23.3	16.5	11.6
67.5°	108.5	95.0	80.4	66.9	60.1	52.3	38.8	28.1	19.4	13.6	9.7
70°	91.1	80.4	67.8	55.2	50.4	43.6	32.0	23.3	15.5	10.7	7.8
72.5°	72.7	64.0	54.3	44.6	40.7	33.9	26.2	18.4	11.6	7.8	5.8
75°	55.2	48.5	40.7	33.9	30.0	26.2	19.4	13.6	8.7	5.8	3.9
77.5°	37.8	34.9	29.1	23.3	21.3	18.4	12.6	8.7	5.8	3.9	1.9
80°	26.2	23.3	19.4	15.5	13.6	11.6	7.8	5.8	2.9	1.9	1.0
82.5°	16.5	13.6	11.6	9.7	8.7	6.8	4.8	2.9	1.9	1.0	1.0
85°	8.7	7.8	6.8	4.8	4.8	3.9	2.9	1.9	1.0	0.0	0.0
87.5°	4.8	3.9	2.9	1.9	1.9	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°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1019.6	1019.6	1018.6	1030.2	1016.6	1030.2	1023.4	1030.2	1020.5	1019.6	1020.5
5°	1027.3	1030.2	1031.2	1041.8	1029.2	1045.7	1039.9	1045.7	1038.9	1040.9	1043.8
7.5°	1042.8	1047.7	1046.7	1060.3	1047.7	1066.1	1062.2	1070.9	1064.1	1066.1	1069.9
10°	1060.3	1066.1	1067.0	1080.6	1069.0	1091.3	1086.4	1096.1	1090.3	1093.2	1098.1
12.5°	1080.6	1087.4	1088.4	1103.9	1091.3	1114.5	1111.6	1121.3	1116.5	1119.4	1125.2
15°	1096.1	1105.8	1107.7	1123.3	1109.7	1133.9	1132.0	1144.6	1136.8	1141.7	1146.5
17.5°	1103.9	1112.6	1116.5	1131.0	1119.4	1143.6	1141.7	1152.3	1146.5	1151.4	1157.2
20°	1099.0	1109.7	1112.6	1127.1	1115.5	1139.7	1136.8	1147.5	1141.7	1145.5	1151.4
22.5°	1081.6	1092.2	1096.1	1109.7	1099.0	1121.3	1120.3	1130.0	1122.3	1127.1	1132.0
25°	1050.6	1062.2	1064.1	1076.7	1065.1	1088.4	1086.4	1097.1	1091.3	1094.2	1101.0
27.5°	1006.0	1019.6	1022.5	1033.1	1024.4	1043.8	1043.8	1052.5	1045.7	1045.7	1052.5
30°	952.7	966.2	968.2	976.9	969.2	986.6	987.6	996.3	985.6	991.4	992.4
32.5°	887.7	896.5	902.3	910.0	898.4	920.7	917.8	924.6	918.8	918.8	923.6
35°	809.2	819.9	822.8	832.5	822.8	840.3	840.3	844.1	838.3	838.3	846.1
37.5°	724.0	731.7	732.7	742.4	734.6	749.2	748.2	751.1	745.3	749.2	749.2
40°	624.1	630.0	631.9	636.7	635.8	646.4	645.5	647.4	644.5	645.5	647.4
42.5°	507.8	515.6	519.5	523.3	517.5	532.1	529.2	532.1	531.1	532.1	535.0
45°	374.1	379.9	382.8	383.8	381.8	390.6	397.4	391.5	392.5	390.6	394.4
47.5°	270.4	271.4	269.4	275.2	270.4	274.3	276.2	277.2	271.4	270.4	274.3
50°	185.1	190.0	183.2	186.1	185.1	189.0	187.0	188.0	182.2	185.1	183.2
52.5°	123.1	122.1	120.2	121.1	119.2	119.2	119.2	121.1	117.3	115.3	113.4
55°	74.6	72.7	68.8	67.8	67.8	68.8	66.9	64.9	64.9	64.0	64.0
57.5°	43.6	40.7	38.8	37.8	35.9	34.9	33.9	33.9	32.0	32.0	32.0
60°	24.2	21.3	19.4	17.4	17.4	16.5	15.5	14.5	14.5	14.5	13.6
62.5°	12.6	10.7	8.7	7.8	7.8	6.8	5.8	5.8	5.8	5.8	4.8
65°	8.7	6.8	5.8	4.8	4.8	3.9	3.9	3.9	3.9	3.9	3.9
67.5°	6.8	5.8	4.8	3.9	3.9	3.9	2.9	2.9	2.9	2.9	2.9
70°	5.8	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P252165

CATALOG NUMBER: LD6B20D010 EU6B10209727 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7	1013.7
2.5°	1029.2	1028.3	1029.2	1031.2	1027.3	1038.9	1033.1	1038.9
5°	1051.5	1052.5	1053.5	1056.4	1051.5	1066.1	1058.3	1067.0
7.5°	1080.6	1081.6	1082.5	1085.5	1082.5	1097.1	1088.4	1096.1
10°	1110.7	1112.6	1112.6	1117.4	1114.5	1128.1	1122.3	1132.0
12.5°	1138.8	1140.7	1142.6	1145.5	1143.6	1158.1	1153.3	1161.0
15°	1161.0	1164.9	1165.9	1169.8	1167.8	1183.3	1177.5	1185.3
17.5°	1171.7	1175.6	1175.6	1180.4	1178.5	1195.0	1187.2	1195.9
20°	1165.9	1168.8	1169.8	1174.6	1172.7	1189.2	1181.4	1192.1
22.5°	1147.5	1148.4	1149.4	1154.3	1153.3	1167.8	1161.0	1167.8
25°	1113.6	1116.5	1115.5	1119.4	1119.4	1131.0	1123.3	1129.1
27.5°	1065.1	1068.0	1068.0	1072.9	1069.0	1080.6	1072.9	1081.6
30°	1006.0	1008.9	1007.0	1010.8	1007.0	1018.6	1012.8	1015.7
32.5°	935.2	935.2	936.2	937.2	935.2	945.9	940.1	945.9
35°	850.9	852.9	853.8	854.8	852.9	860.6	853.8	857.7
37.5°	755.9	760.8	759.8	760.8	757.9	767.6	761.8	763.7
40°	654.2	654.2	653.2	655.1	652.2	660.0	656.1	658.1
42.5°	535.9	538.9	535.0	539.8	532.1	542.7	538.9	535.9
45°	402.2	398.3	397.4	398.3	395.4	396.4	399.3	397.4
47.5°	274.3	274.3	272.3	269.4	273.3	274.3	270.4	270.4
50°	184.1	184.1	182.2	181.2	183.2	182.2	180.3	183.2
52.5°	117.3	113.4	113.4	115.3	113.4	111.5	114.4	112.4
55°	64.0	62.0	62.0	64.0	62.0	62.0	61.1	63.0
57.5°	31.0	32.0	31.0	31.0	31.0	31.0	30.0	31.0
60°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
62.5°	5.8	5.8	4.8	4.8	4.8	4.8	4.8	4.8
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°	1.9	1.9	1.9	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)