

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: P136429

Luminaire Tested: **LD6A20D010TE ERW6A20930 6LW111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23375)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A20D010TE ERW6A20930 6LW111H
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2114.1 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

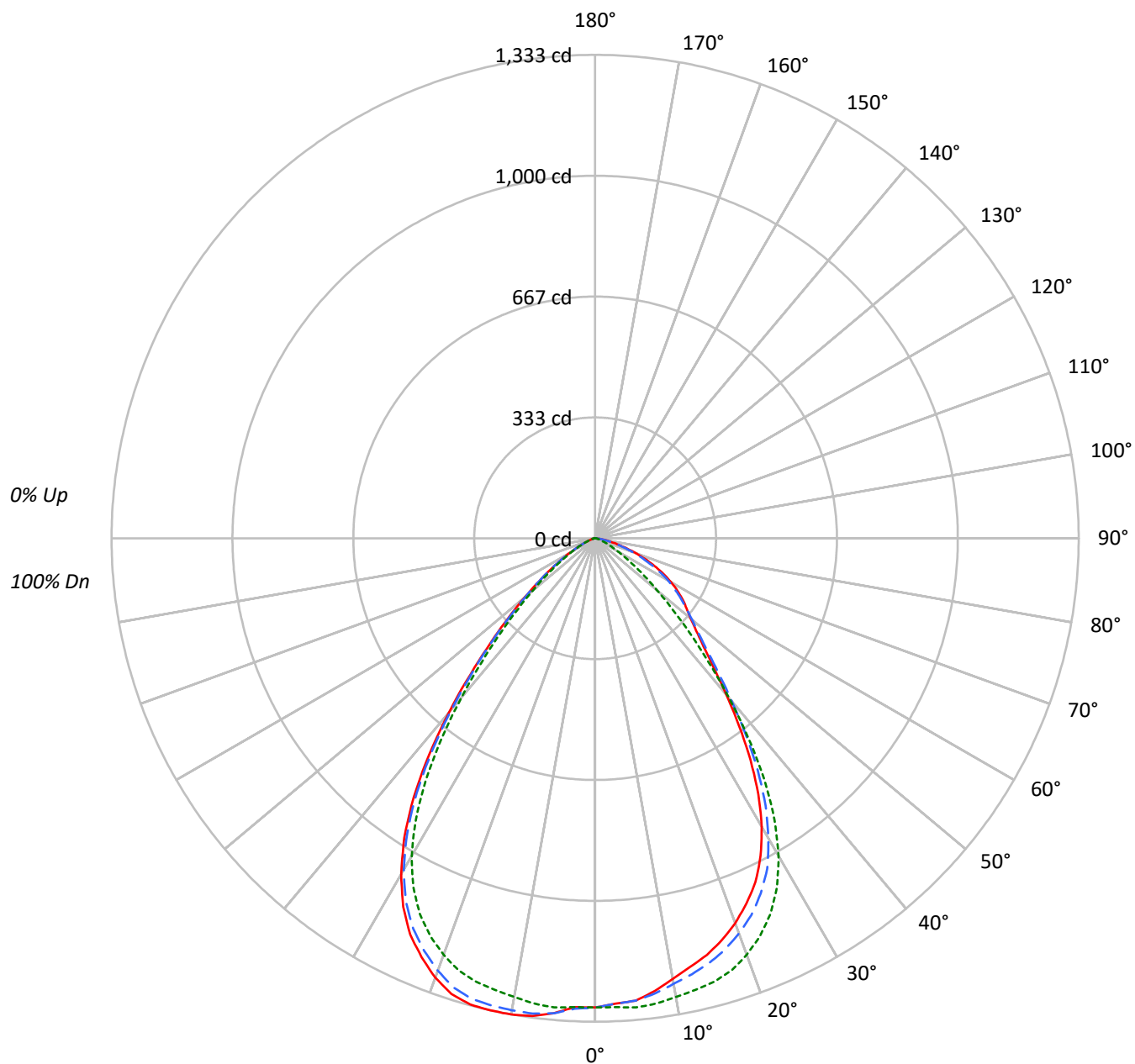
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	102	109	106	103	101		102	100	98		98	96	95		95	93	92
2	104	98	93	89	102	96	92	88		93	89	86		90	87	84		87	84	82
3	97	89	83	78	95	88	82	77		85	80	76		82	78	75		80	76	73
4	91	81	74	69	89	80	74	69		78	72	68		76	71	67		74	69	66
5	85	74	67	62	83	73	67	61		71	65	61		70	64	60		68	63	60
6	79	68	61	56	78	68	61	55		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	49
8	70	58	51	46	69	58	51	46		57	50	46		55	50	46		54	49	45
9	66	54	47	42	65	54	47	42		53	46	42		52	46	42		51	46	42
10	62	51	44	39	61	50	43	39		49	43	39		48	43	39		48	42	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	84408	84408	84408
5°	83820	85039	86099
10°	81716	85094	88327
15°	80341	85508	89892
20°	78398	84834	89506
25°	75275	82286	86792
30°	69171	76162	80531
35°	59462	64814	69434
40°	47786	48774	53314
45°	38935	33806	37441
50°	34834	22593	25648
55°	33497	14764	16880
60°	31459	9382	10582
65°	27926	5727	6098
70°	22566	3529	3529
75°	15780	2344	2344
80°	10445	1728	1728
85°	5165	1722	1722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	5.8
10°-20°	355.2	16.8
20°-30°	517.2	24.5
30°-40°	501.7	23.7
40°-50°	317.1	15.0
50°-60°	176.6	8.4
60°-70°	87.5	4.1
70°-80°	30.8	1.5
80°-90°	4.8	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°	995.6	47.1
0°-40°	1497.3	70.8
0°-60°	1991.0	94.2
0°-90°	2114.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2114.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1294	1294	1294	1294	1294	
5°	1280	1280	1298	1315	1315	121
15°	1190	1213	1266	1315	1331	335
25°	1046	1080	1143	1187	1206	477
35°	747	781	814	858	872	463
45°	422	434	366	401	406	334
55°	294	288	130	148	148	262
65°	181	167	37	40	40	178
75°	63	58	9	9	9	70
85°	7	7	2	2	2	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8
2.5°	1284.5	1273.0	1277.6	1275.3	1277.6	1275.3	1282.2	1275.3	1279.9	1284.5	1275.3
5°	1279.9	1268.3	1270.7	1270.7	1270.7	1270.7	1277.6	1270.7	1275.3	1279.9	1273.0
7.5°	1259.1	1249.8	1252.1	1252.1	1252.1	1252.1	1259.1	1254.5	1259.1	1266.0	1259.1
10°	1233.5	1224.3	1228.9	1228.9	1228.9	1228.9	1238.2	1233.5	1238.2	1247.5	1240.6
12.5°	1210.4	1203.4	1208.1	1208.1	1208.1	1210.4	1217.3	1215.0	1219.6	1231.2	1224.3
15°	1189.5	1182.6	1187.2	1187.2	1187.2	1189.5	1196.5	1198.8	1203.4	1212.7	1208.1
17.5°	1161.7	1154.7	1161.7	1161.7	1159.3	1164.0	1173.2	1173.2	1177.9	1189.5	1187.2
20°	1129.2	1122.3	1129.2	1129.2	1126.9	1131.6	1140.8	1143.1	1147.8	1159.3	1157.0
22.5°	1089.8	1087.5	1089.8	1094.4	1092.1	1094.4	1103.7	1106.0	1110.6	1124.6	1122.3
25°	1045.7	1043.4	1048.0	1050.3	1048.0	1050.3	1059.7	1062.0	1066.6	1080.5	1080.5
27.5°	987.7	985.4	992.4	992.4	992.4	997.1	1004.0	1008.7	1011.0	1027.2	1024.9
30°	918.2	915.9	920.5	922.8	922.8	922.8	932.1	939.1	941.4	955.3	955.3
32.5°	837.1	837.1	839.4	844.0	841.7	846.3	853.3	857.9	862.5	874.1	874.1
35°	746.6	748.9	751.2	755.9	753.6	755.9	762.9	767.5	769.8	781.4	779.1
37.5°	651.6	653.9	656.2	658.5	658.5	660.8	667.8	670.1	672.4	681.7	677.0
40°	561.1	561.1	563.4	568.0	565.7	570.4	575.1	577.4	577.4	584.3	579.7
42.5°	482.3	484.6	486.9	489.2	489.2	491.6	496.2	498.5	498.5	500.8	493.9
45°	422.0	424.3	424.3	429.0	429.0	431.3	433.6	435.9	433.6	433.6	426.6
47.5°	377.9	380.2	382.6	384.9	384.9	387.2	389.5	389.5	387.2	384.9	375.6
50°	343.2	347.8	347.8	350.1	352.5	354.8	354.8	354.8	350.1	347.8	333.9
52.5°	317.6	320.0	322.3	324.6	324.6	326.9	329.2	326.9	322.3	315.3	301.4
55°	294.5	296.8	299.1	301.4	301.4	301.4	301.4	299.1	294.5	287.5	273.6
57.5°	268.9	271.3	273.6	276.0	276.0	276.0	276.0	273.6	268.9	259.7	243.5
60°	241.1	243.5	245.8	248.1	248.1	248.1	245.8	243.5	238.8	231.9	215.7
62.5°	211.0	213.4	215.7	215.7	215.7	213.4	213.4	211.0	206.3	199.4	183.2
65°	180.9	180.9	183.2	183.2	183.2	183.2	180.9	178.5	173.9	167.0	155.4
67.5°	148.4	150.7	150.7	150.7	150.7	150.7	148.4	148.4	143.7	136.8	127.5
70°	118.3	118.3	120.6	120.6	120.6	120.6	118.3	118.3	113.6	109.0	99.7
72.5°	88.1	88.1	88.1	90.4	90.4	90.4	88.1	88.1	85.8	81.1	74.2
75°	62.6	62.6	62.6	64.9	64.9	64.9	64.9	62.6	60.3	58.0	53.3
77.5°	41.8	44.1	41.8	41.8	41.8	44.1	41.8	41.8	41.8	39.5	34.8
80°	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	25.5	25.5	23.1
82.5°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	13.9	13.9
85°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
87.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8
2.5°	1282.2	1286.9	1291.5	1286.9	1279.9	1293.8	1291.5	1293.8	1291.5	1286.9	1300.8
5°	1279.9	1284.5	1291.5	1286.9	1282.2	1296.1	1293.8	1298.5	1298.5	1293.8	1307.8
7.5°	1266.0	1270.7	1282.2	1277.6	1273.0	1286.9	1289.2	1293.8	1296.1	1291.5	1307.8
10°	1249.8	1254.5	1266.0	1263.7	1261.4	1277.6	1279.9	1284.5	1286.9	1284.5	1300.8
12.5°	1233.5	1240.6	1252.1	1249.8	1249.8	1266.0	1268.3	1275.3	1279.9	1277.6	1296.1
15°	1217.3	1226.6	1240.6	1238.2	1238.2	1256.8	1259.1	1266.0	1270.7	1270.7	1289.2
17.5°	1196.5	1205.7	1219.6	1217.3	1221.9	1235.8	1240.6	1249.8	1254.5	1252.1	1273.0
20°	1166.3	1177.9	1191.8	1189.5	1191.8	1210.4	1215.0	1221.9	1226.6	1226.6	1245.2
22.5°	1131.6	1143.1	1157.0	1154.7	1159.3	1173.2	1177.9	1187.2	1191.8	1189.5	1208.1
25°	1089.8	1101.4	1112.9	1112.9	1115.3	1131.6	1136.2	1143.1	1150.1	1147.8	1164.0
27.5°	1034.1	1045.7	1057.3	1055.0	1057.3	1073.6	1078.2	1085.2	1092.1	1089.8	1106.0
30°	962.3	973.8	983.1	980.8	983.1	999.4	1001.7	1011.0	1017.9	1017.9	1031.8
32.5°	878.8	890.4	895.0	890.4	895.0	906.6	911.2	920.5	925.1	927.5	941.4
35°	783.7	790.7	793.0	788.4	788.4	799.9	804.6	813.8	818.6	820.9	832.4
37.5°	679.4	684.0	679.4	672.4	674.7	679.4	686.3	693.3	700.3	702.6	714.2
40°	577.4	575.1	568.0	556.5	554.2	561.1	565.7	572.7	577.4	582.0	589.0
42.5°	486.9	482.3	468.4	454.5	452.1	452.1	454.5	461.5	466.1	468.4	477.7
45°	415.1	405.8	384.9	368.7	359.4	361.7	361.7	366.4	368.7	373.3	380.2
47.5°	359.4	343.2	317.6	296.8	287.5	285.2	285.2	287.5	289.9	294.5	299.1
50°	315.3	294.5	264.3	241.1	229.6	224.9	224.9	222.6	227.3	229.6	234.2
52.5°	280.6	255.0	220.3	194.7	180.9	176.2	173.9	173.9	173.9	176.2	180.9
55°	248.1	220.3	183.2	157.7	141.4	136.8	132.1	129.8	132.1	134.5	136.8
57.5°	220.3	190.1	153.1	125.2	111.3	104.4	99.7	97.4	97.4	99.7	102.1
60°	192.4	162.3	125.2	99.7	85.8	78.8	74.2	71.9	71.9	74.2	74.2
62.5°	162.3	134.5	102.1	78.8	64.9	58.0	53.3	53.3	51.0	51.0	53.3
65°	136.8	111.3	83.4	62.6	48.7	44.1	39.5	37.1	37.1	34.8	37.1
67.5°	111.3	90.4	67.2	48.7	37.1	32.5	27.8	27.8	25.5	25.5	25.5
70°	88.1	71.9	53.3	37.1	30.1	23.1	20.8	18.5	18.5	18.5	18.5
72.5°	64.9	53.3	39.5	27.8	20.8	18.5	16.2	13.9	11.6	11.6	11.6
75°	46.4	37.1	27.8	20.8	16.2	13.9	11.6	9.3	9.3	9.3	9.3
77.5°	32.5	25.5	20.8	13.9	11.6	9.3	6.9	6.9	6.9	6.9	4.6
80°	20.8	16.2	13.9	9.3	6.9	6.9	4.6	4.6	4.6	4.6	4.6
82.5°	11.6	9.3	6.9	6.9	4.6	4.6	2.3	2.3	2.3	2.3	2.3
85°	4.6	4.6	4.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8	1293.8
2.5°	1286.9	1296.1	1296.1	1300.8	1293.8	1298.5	1305.5	1303.2	1296.1	1298.5	1300.8
5°	1296.1	1305.5	1307.8	1314.7	1307.8	1314.7	1324.0	1321.7	1314.7	1319.4	1321.7
7.5°	1296.1	1307.8	1312.4	1319.4	1314.7	1321.7	1333.3	1330.9	1324.0	1328.6	1333.3
10°	1291.5	1303.2	1310.1	1317.1	1312.4	1321.7	1330.9	1330.9	1326.3	1330.9	1337.9
12.5°	1286.9	1298.5	1305.5	1312.4	1307.8	1319.4	1330.9	1328.6	1326.3	1330.9	1337.9
15°	1279.9	1291.5	1298.5	1305.5	1303.2	1314.7	1326.3	1326.3	1321.7	1328.6	1335.6
17.5°	1263.7	1275.3	1284.5	1289.2	1286.9	1298.5	1310.1	1310.1	1305.5	1312.4	1319.4
20°	1235.8	1247.5	1256.8	1261.4	1259.1	1268.3	1279.9	1282.2	1277.6	1284.5	1291.5
22.5°	1201.1	1210.4	1219.6	1224.3	1221.9	1231.2	1242.9	1245.2	1240.6	1247.5	1252.1
25°	1159.3	1166.3	1175.6	1180.3	1177.9	1187.2	1198.8	1198.8	1196.5	1201.1	1205.7
27.5°	1101.4	1110.6	1117.6	1122.3	1122.3	1129.2	1138.5	1140.8	1138.5	1143.1	1150.1
30°	1029.5	1034.1	1043.4	1045.7	1048.0	1055.0	1064.3	1064.3	1062.0	1066.6	1073.6
32.5°	939.1	946.1	953.0	955.3	957.6	964.6	971.5	973.8	971.5	976.2	983.1
35°	832.4	839.4	846.3	848.6	851.0	857.9	864.9	867.2	864.9	869.5	876.5
37.5°	714.2	718.8	725.8	728.1	732.7	737.3	742.0	746.6	744.3	748.9	753.6
40°	593.6	595.9	602.9	605.2	609.8	614.4	619.1	621.4	621.4	623.7	626.0
42.5°	480.0	484.6	489.2	491.6	496.2	498.5	503.1	505.4	505.4	507.8	510.1
45°	382.6	387.2	391.8	394.2	398.9	401.2	403.5	405.8	403.5	403.5	408.1
47.5°	301.4	306.1	310.7	313.0	315.3	317.6	320.0	320.0	320.0	322.3	322.3
50°	236.5	238.8	243.5	243.5	248.1	248.1	250.4	250.4	250.4	250.4	252.7
52.5°	183.2	185.5	190.1	190.1	192.4	194.7	194.7	194.7	194.7	197.1	194.7
55°	139.1	141.4	143.7	143.7	148.4	148.4	148.4	148.4	148.4	148.4	148.4
57.5°	104.4	106.7	109.0	109.0	109.0	111.3	109.0	111.3	111.3	111.3	111.3
60°	76.5	78.8	78.8	78.8	81.1	81.1	81.1	81.1	81.1	81.1	81.1
62.5°	53.3	53.3	55.7	55.7	55.7	58.0	55.7	55.7	58.0	58.0	55.7
65°	37.1	37.1	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
67.5°	25.5	25.5	25.5	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
70°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
72.5°	11.6	11.6	11.6	11.6	13.9	13.9	13.9	13.9	13.9	13.9	13.9
75°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
77.5°	4.6	4.6	6.9	6.9	6.9	4.6	4.6	4.6	6.9	6.9	4.6
80°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
82.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	0.0	2.3	2.3	2.3
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: P136429

CATALOG NUMBER: LD6A20D010TE ERW6A20930 6LW111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1293.8	1293.8	1293.8	1293.8
2.5°	1300.8	1298.5	1300.8	1293.8
5°	1321.7	1319.4	1324.0	1314.7
7.5°	1335.6	1333.3	1337.9	1328.6
10°	1337.9	1337.9	1342.5	1333.3
12.5°	1337.9	1337.9	1342.5	1333.3
15°	1337.9	1335.6	1340.2	1330.9
17.5°	1321.7	1321.7	1326.3	1317.1
20°	1291.5	1291.5	1296.1	1289.2
22.5°	1254.5	1254.5	1256.8	1249.8
25°	1208.1	1205.7	1210.4	1205.7
27.5°	1150.1	1147.8	1150.1	1145.5
30°	1071.3	1069.0	1073.6	1069.0
32.5°	983.1	978.5	983.1	978.5
35°	874.1	869.5	874.1	871.8
37.5°	753.6	748.9	753.6	751.2
40°	626.0	623.7	628.3	626.0
42.5°	510.1	505.4	510.1	507.8
45°	408.1	403.5	408.1	405.8
47.5°	322.3	320.0	324.6	322.3
50°	252.7	250.4	252.7	252.7
52.5°	194.7	192.4	194.7	194.7
55°	148.4	146.0	148.4	148.4
57.5°	111.3	109.0	111.3	111.3
60°	81.1	81.1	81.1	81.1
62.5°	58.0	55.7	58.0	58.0
65°	39.5	39.5	39.5	39.5
67.5°	27.8	27.8	27.8	27.8
70°	18.5	18.5	18.5	18.5
72.5°	13.9	13.9	13.9	11.6
75°	9.3	9.3	9.3	9.3
77.5°	6.9	4.6	6.9	6.9
80°	4.6	4.6	4.6	4.6
82.5°	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)