

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: P136424

Luminaire Tested: **LD6A20D010TE ERW6A20827 6LW111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136424
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 ERW6A20827 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 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2191.0 lumens
Efficiency: N/A
Efficacy: 66.8 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

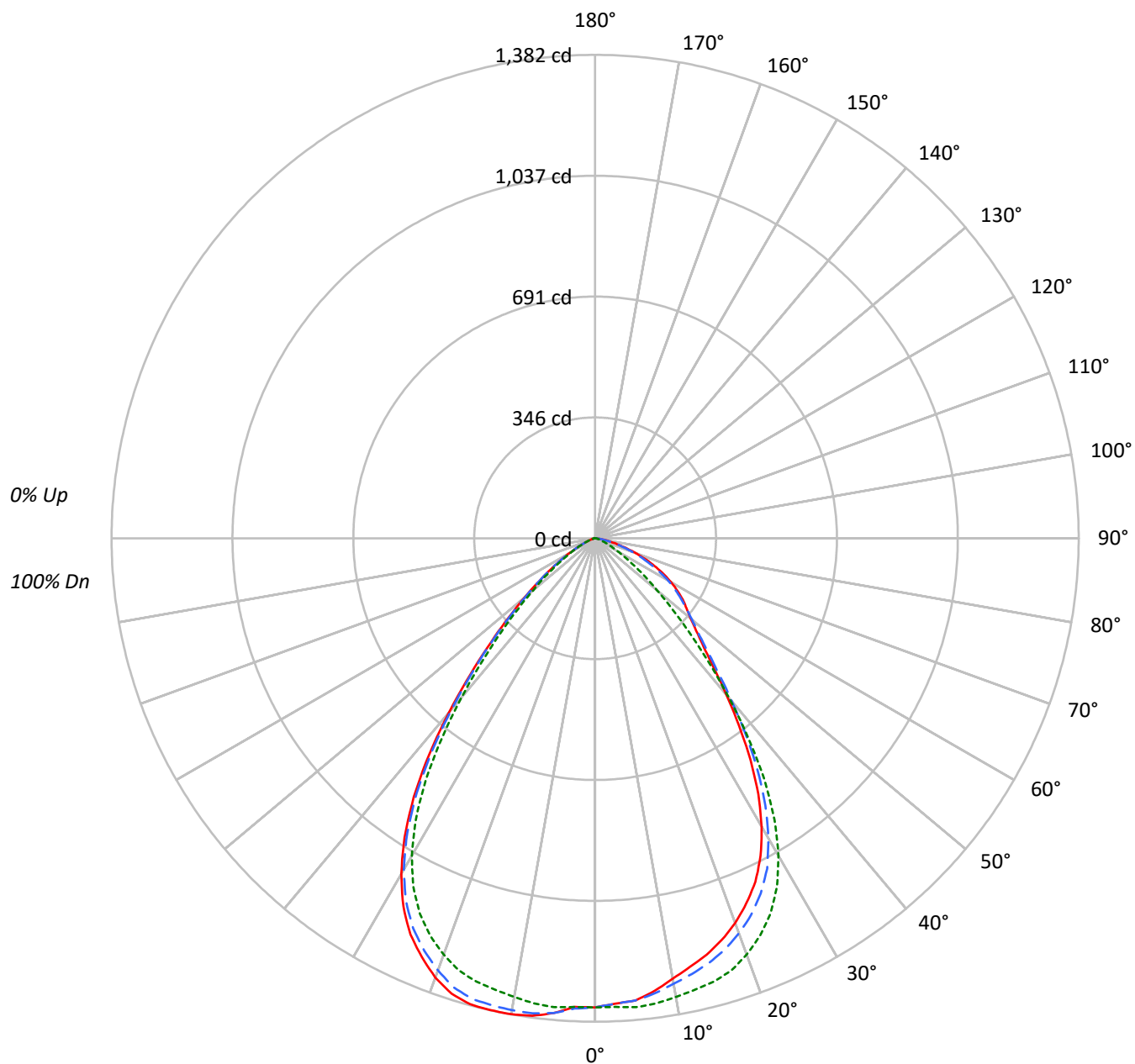
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
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°	87481	87481	87481
5°	86872	88130	89230
10°	84690	88195	91534
15°	83259	88615	93161
20°	81251	87923	92762
25°	78017	85281	89953
30°	71687	78927	83454
35°	61629	67180	71958
40°	49524	50546	55255
45°	40347	35033	38797
50°	36092	23415	26582
55°	34715	15310	17494
60°	32607	9721	10973
65°	28929	5928	6314
70°	23386	3662	3662
75°	16359	2420	2420
80°	10820	1803	1803
85°	5390	1797	1797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	5.8
10°-20°	368.1	16.8
20°-30°	536.0	24.5
30°-40°	520.0	23.7
40°-50°	328.6	15.0
50°-60°	183.0	8.4
60°-70°	90.7	4.1
70°-80°	31.9	1.5
80°-90°	5.0	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°	1031.8	47.1
0°-40°	1551.7	70.8
0°-60°	2063.4	94.2
0°-90°	2191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2191.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1341	1341	1341	1341	1341	
5°	1326	1326	1346	1362	1362	125
15°	1233	1257	1312	1362	1379	347
25°	1084	1120	1185	1230	1250	494
35°	774	810	844	889	904	480
45°	437	449	380	416	420	346
55°	305	298	135	154	154	272
65°	187	173	38	41	41	184
75°	65	60	10	10	10	72
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°	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9
2.5°	1331.3	1319.3	1324.1	1321.7	1324.1	1321.7	1328.9	1321.7	1326.5	1331.3	1321.7
5°	1326.5	1314.4	1316.8	1316.8	1316.8	1316.8	1324.1	1316.8	1321.7	1326.5	1319.3
7.5°	1304.8	1295.2	1297.6	1297.6	1297.6	1297.6	1304.8	1300.0	1304.8	1312.0	1304.8
10°	1278.4	1268.8	1273.6	1273.6	1273.6	1273.6	1283.2	1278.4	1283.2	1292.8	1285.6
12.5°	1254.4	1247.2	1252.0	1252.0	1252.0	1254.4	1261.6	1259.2	1264.0	1276.0	1268.8
15°	1232.7	1225.5	1230.3	1230.3	1230.3	1232.7	1240.0	1242.4	1247.2	1256.8	1252.0
17.5°	1203.9	1196.7	1203.9	1203.9	1201.5	1206.3	1215.9	1215.9	1220.7	1232.7	1230.3
20°	1170.3	1163.1	1170.3	1170.3	1167.9	1172.7	1182.3	1184.7	1189.5	1201.5	1199.1
22.5°	1129.4	1127.0	1129.4	1134.2	1131.8	1134.2	1143.8	1146.2	1151.0	1165.5	1163.1
25°	1083.8	1081.4	1086.2	1088.6	1086.2	1088.6	1098.2	1100.6	1105.4	1119.8	1119.8
27.5°	1023.7	1021.3	1028.5	1028.5	1028.5	1033.3	1040.5	1045.3	1047.7	1064.5	1062.1
30°	951.6	949.2	954.0	956.4	956.4	956.4	966.0	973.2	975.6	990.0	990.0
32.5°	867.5	867.5	869.9	874.7	872.3	877.1	884.3	889.1	893.9	905.9	905.9
35°	773.8	776.2	778.6	783.4	781.0	783.4	790.6	795.4	797.8	809.8	807.4
37.5°	675.2	677.6	680.1	682.5	682.5	684.9	692.1	694.5	696.9	706.5	701.7
40°	581.5	581.5	583.9	588.7	586.3	591.1	595.9	598.3	598.3	605.6	600.8
42.5°	499.8	502.2	504.6	507.0	507.0	509.4	514.2	516.6	516.6	519.1	511.8
45°	437.3	439.8	439.8	444.6	444.6	447.0	449.4	451.8	449.4	449.4	442.2
47.5°	391.7	394.1	396.5	398.9	398.9	401.3	403.7	403.7	401.3	398.9	389.3
50°	355.6	360.5	360.5	362.9	365.3	367.7	367.7	367.7	362.9	360.5	346.0
52.5°	329.2	331.6	334.0	336.4	336.4	338.8	341.2	338.8	334.0	326.8	312.4
55°	305.2	307.6	310.0	312.4	312.4	312.4	312.4	310.0	305.2	298.0	283.6
57.5°	278.7	281.2	283.6	286.0	286.0	286.0	286.0	283.6	278.7	269.1	252.3
60°	249.9	252.3	254.7	257.1	257.1	257.1	254.7	252.3	247.5	240.3	223.5
62.5°	218.7	221.1	223.5	223.5	223.5	221.1	221.1	218.7	213.9	206.7	189.8
65°	187.4	187.4	189.8	189.8	189.8	189.8	187.4	185.0	180.2	173.0	161.0
67.5°	153.8	156.2	156.2	156.2	156.2	156.2	153.8	153.8	149.0	141.8	132.2
70°	122.6	122.6	125.0	125.0	125.0	125.0	122.6	122.6	117.7	112.9	103.3
72.5°	91.3	91.3	91.3	93.7	93.7	93.7	91.3	91.3	88.9	84.1	76.9
75°	64.9	64.9	64.9	67.3	67.3	67.3	67.3	64.9	62.5	60.1	55.3
77.5°	43.3	45.7	43.3	43.3	43.3	45.7	43.3	43.3	43.3	40.9	36.0
80°	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	26.4	26.4	24.0
82.5°	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	14.4	14.4
85°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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°	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9
2.5°	1328.9	1333.7	1338.5	1333.7	1326.5	1340.9	1338.5	1340.9	1338.5	1333.7	1348.1
5°	1326.5	1331.3	1338.5	1333.7	1328.9	1343.3	1340.9	1345.7	1345.7	1340.9	1355.3
7.5°	1312.0	1316.8	1328.9	1324.1	1319.3	1333.7	1336.1	1340.9	1343.3	1338.5	1355.3
10°	1295.2	1300.0	1312.0	1309.6	1307.2	1324.1	1326.5	1331.3	1333.7	1331.3	1348.1
12.5°	1278.4	1285.6	1297.6	1295.2	1295.2	1312.0	1314.4	1321.7	1326.5	1324.1	1343.3
15°	1261.6	1271.2	1285.6	1283.2	1283.2	1302.4	1304.8	1312.0	1316.8	1316.8	1336.1
17.5°	1240.0	1249.6	1264.0	1261.6	1266.4	1280.8	1285.6	1295.2	1300.0	1297.6	1319.3
20°	1208.7	1220.7	1235.1	1232.7	1235.1	1254.4	1259.2	1266.4	1271.2	1271.2	1290.4
22.5°	1172.7	1184.7	1199.1	1196.7	1201.5	1215.9	1220.7	1230.3	1235.1	1232.7	1252.0
25°	1129.4	1141.4	1153.4	1153.4	1155.8	1172.7	1177.5	1184.7	1191.9	1189.5	1206.3
27.5°	1071.7	1083.8	1095.8	1093.4	1095.8	1112.6	1117.4	1124.6	1131.8	1129.4	1146.2
30°	997.2	1009.3	1018.9	1016.5	1018.9	1035.7	1038.1	1047.7	1054.9	1054.9	1069.3
32.5°	910.7	922.8	927.6	922.8	927.6	939.6	944.4	954.0	958.8	961.2	975.6
35°	812.2	819.4	821.8	817.0	817.0	829.0	833.8	843.5	848.3	850.7	862.7
37.5°	704.1	708.9	704.1	696.9	699.3	704.1	711.3	718.5	725.7	728.1	740.1
40°	598.3	595.9	588.7	576.7	574.3	581.5	586.3	593.5	598.3	603.2	610.4
42.5°	504.6	499.8	485.4	471.0	468.6	468.6	471.0	478.2	483.0	485.4	495.0
45°	430.1	420.5	398.9	382.1	372.5	374.9	374.9	379.7	382.1	386.9	394.1
47.5°	372.5	355.6	329.2	307.6	298.0	295.6	295.6	298.0	300.4	305.2	310.0
50°	326.8	305.2	273.9	249.9	237.9	233.1	233.1	230.7	235.5	237.9	242.7
52.5°	290.8	264.3	228.3	201.9	187.4	182.6	180.2	180.2	180.2	182.6	187.4
55°	257.1	228.3	189.8	163.4	146.6	141.8	137.0	134.6	137.0	139.4	141.8
57.5°	228.3	197.0	158.6	129.8	115.3	108.1	103.3	100.9	100.9	103.3	105.7
60°	199.4	168.2	129.8	103.3	88.9	81.7	76.9	74.5	74.5	76.9	76.9
62.5°	168.2	139.4	105.7	81.7	67.3	60.1	55.3	55.3	52.9	52.9	55.3
65°	141.8	115.3	86.5	64.9	50.5	45.7	40.9	38.4	38.4	36.0	38.4
67.5°	115.3	93.7	69.7	50.5	38.4	33.6	28.8	28.8	26.4	26.4	26.4
70°	91.3	74.5	55.3	38.4	31.2	24.0	21.6	19.2	19.2	19.2	19.2
72.5°	67.3	55.3	40.9	28.8	21.6	19.2	16.8	14.4	12.0	12.0	12.0
75°	48.1	38.4	28.8	21.6	16.8	14.4	12.0	9.6	9.6	9.6	9.6
77.5°	33.6	26.4	21.6	14.4	12.0	9.6	7.2	7.2	7.2	7.2	4.8
80°	21.6	16.8	14.4	9.6	7.2	7.2	4.8	4.8	4.8	4.8	4.8
82.5°	12.0	9.6	7.2	7.2	4.8	4.8	2.4	2.4	2.4	2.4	2.4
85°	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
87.5°	2.4	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°	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9
2.5°	1333.7	1343.3	1343.3	1348.1	1340.9	1345.7	1352.9	1350.5	1343.3	1345.7	1348.1
5°	1343.3	1352.9	1355.3	1362.5	1355.3	1362.5	1372.1	1369.7	1362.5	1367.3	1369.7
7.5°	1343.3	1355.3	1360.1	1367.3	1362.5	1369.7	1381.7	1379.3	1372.1	1376.9	1381.7
10°	1338.5	1350.5	1357.7	1364.9	1360.1	1369.7	1379.3	1379.3	1374.5	1379.3	1386.5
12.5°	1333.7	1345.7	1352.9	1360.1	1355.3	1367.3	1379.3	1376.9	1374.5	1379.3	1386.5
15°	1326.5	1338.5	1345.7	1352.9	1350.5	1362.5	1374.5	1374.5	1369.7	1376.9	1384.1
17.5°	1309.6	1321.7	1331.3	1336.1	1333.7	1345.7	1357.7	1357.7	1352.9	1360.1	1367.3
20°	1280.8	1292.8	1302.4	1307.2	1304.8	1314.4	1326.5	1328.9	1324.1	1331.3	1338.5
22.5°	1244.8	1254.4	1264.0	1268.8	1266.4	1276.0	1288.0	1290.4	1285.6	1292.8	1297.6
25°	1201.5	1208.7	1218.3	1223.1	1220.7	1230.3	1242.4	1242.4	1240.0	1244.8	1249.6
27.5°	1141.4	1151.0	1158.3	1163.1	1163.1	1170.3	1179.9	1182.3	1179.9	1184.7	1191.9
30°	1066.9	1071.7	1081.4	1083.8	1086.2	1093.4	1103.0	1103.0	1100.6	1105.4	1112.6
32.5°	973.2	980.4	987.6	990.0	992.4	999.7	1006.9	1009.3	1006.9	1011.7	1018.9
35°	862.7	869.9	877.1	879.5	881.9	889.1	896.3	898.7	896.3	901.1	908.3
37.5°	740.1	744.9	752.1	754.5	759.4	764.2	769.0	773.8	771.4	776.2	781.0
40°	615.2	617.6	624.8	627.2	632.0	636.8	641.6	644.0	644.0	646.4	648.8
42.5°	497.4	502.2	507.0	509.4	514.2	516.6	521.5	523.9	523.9	526.3	528.7
45°	396.5	401.3	406.1	408.5	413.3	415.7	418.1	420.5	418.1	418.1	422.9
47.5°	312.4	317.2	322.0	324.4	326.8	329.2	331.6	331.6	331.6	334.0	334.0
50°	245.1	247.5	252.3	252.3	257.1	257.1	259.5	259.5	259.5	259.5	261.9
52.5°	189.8	192.2	197.0	197.0	199.4	201.9	201.9	201.9	201.9	204.3	201.9
55°	144.2	146.6	149.0	149.0	153.8	153.8	153.8	153.8	153.8	153.8	153.8
57.5°	108.1	110.5	112.9	112.9	112.9	115.3	112.9	115.3	115.3	115.3	115.3
60°	79.3	81.7	81.7	81.7	84.1	84.1	84.1	84.1	84.1	84.1	84.1
62.5°	55.3	55.3	57.7	57.7	57.7	60.1	57.7	57.7	60.1	60.1	57.7
65°	38.4	38.4	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9
67.5°	26.4	26.4	26.4	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
70°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
72.5°	12.0	12.0	12.0	12.0	14.4	14.4	14.4	14.4	14.4	14.4	14.4
75°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
77.5°	4.8	4.8	7.2	7.2	7.2	4.8	4.8	4.8	7.2	7.2	4.8
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.0	2.4	2.4	2.4
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: P136424

CATALOG NUMBER: LD6A20D010TE ERW6A20827 6LW111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1340.9	1340.9	1340.9	1340.9
2.5°	1348.1	1345.7	1348.1	1340.9
5°	1369.7	1367.3	1372.1	1362.5
7.5°	1384.1	1381.7	1386.5	1376.9
10°	1386.5	1386.5	1391.3	1381.7
12.5°	1386.5	1386.5	1391.3	1381.7
15°	1386.5	1384.1	1388.9	1379.3
17.5°	1369.7	1369.7	1374.5	1364.9
20°	1338.5	1338.5	1343.3	1336.1
22.5°	1300.0	1300.0	1302.4	1295.2
25°	1252.0	1249.6	1254.4	1249.6
27.5°	1191.9	1189.5	1191.9	1187.1
30°	1110.2	1107.8	1112.6	1107.8
32.5°	1018.9	1014.1	1018.9	1014.1
35°	905.9	901.1	905.9	903.5
37.5°	781.0	776.2	781.0	778.6
40°	648.8	646.4	651.2	648.8
42.5°	528.7	523.9	528.7	526.3
45°	422.9	418.1	422.9	420.5
47.5°	334.0	331.6	336.4	334.0
50°	261.9	259.5	261.9	261.9
52.5°	201.9	199.4	201.9	201.9
55°	153.8	151.4	153.8	153.8
57.5°	115.3	112.9	115.3	115.3
60°	84.1	84.1	84.1	84.1
62.5°	60.1	57.7	60.1	60.1
65°	40.9	40.9	40.9	40.9
67.5°	28.8	28.8	28.8	28.8
70°	19.2	19.2	19.2	19.2
72.5°	14.4	14.4	14.4	12.0
75°	9.6	9.6	9.6	9.6
77.5°	7.2	4.8	7.2	7.2
80°	4.8	4.8	4.8	4.8
82.5°	2.4	2.4	2.4	2.4
85°	2.4	2.4	2.4	2.4
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)