

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: P136551

Luminaire Tested: **LD6A20D010TE ERW6A20940 6LW121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23360)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A20D010TE ERW6A20940 6LW121LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2309.6 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.24 / 1.14
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

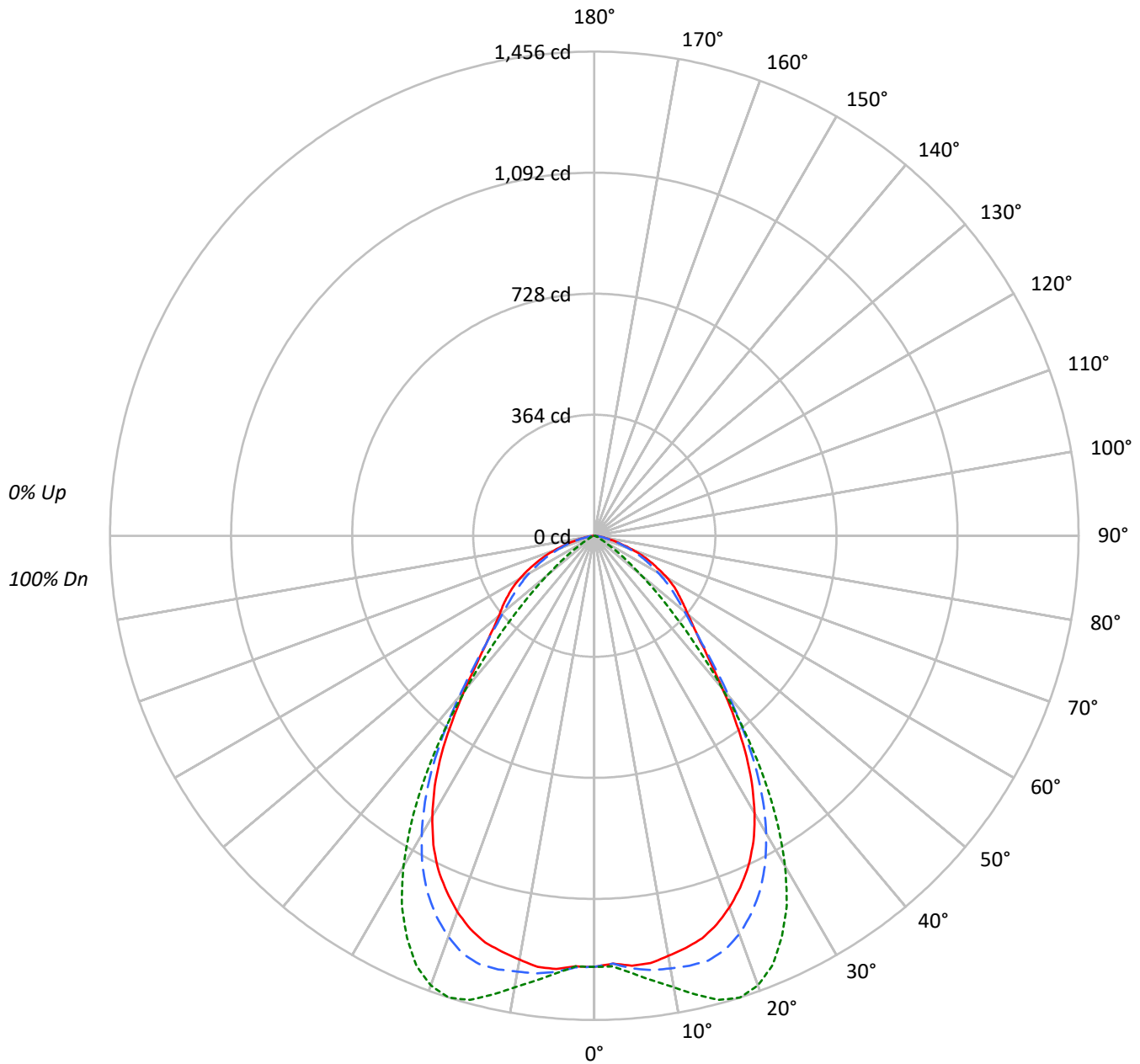
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	108	105	102	109	106	103	100	102	99	97		98	96	94		94
2	104	97	92	88	101	96	91	87	92	88	85		89	86	83		86
3	97	88	82	76	94	87	81	76	84	79	74		81	77	73		79
4	90	80	73	67	88	79	72	67	77	71	66		74	69	65		72
5	84	73	66	60	82	72	65	60	70	64	59		68	63	59		67
6	78	67	60	54	77	66	59	54	65	58	54		63	57	53		62
7	73	62	54	49	72	61	54	49	60	53	49		58	53	48		57
8	69	57	50	45	68	57	50	45	55	49	44		54	48	44		53
9	65	53	46	41	64	53	46	41	52	45	41		51	45	41		50
10	61	49	42	38	60	49	42	38	48	42	38		47	42	37		46

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	84558	84558	84558
5°	84986	86506	85641
10°	84988	91341	85750
15°	84637	97592	85529
20°	82522	99851	83556
25°	78903	95920	79853
30°	72606	86422	73352
35°	62935	70835	63859
40°	50972	50972	51670
45°	41639	32339	42405
50°	37249	18452	37919
55°	35158	9395	36284
60°	32999	4097	33860
65°	28837	2285	29856
70°	23329	1908	24283
75°	16233	1260	16662
80°	9956	639	9956
85°	4940	1273	4940



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	5.5
10°-20°	377.8	16.4
20°-30°	549.6	23.8
30°-40°	522.3	22.6
40°-50°	338.4	14.7
50°-60°	212.3	9.2
60°-70°	127.0	5.5
70°-80°	49.5	2.1
80°-90°	6.8	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°	1053.4	45.6
0°-40°	1575.7	68.2
0°-60°	2126.4	92.1
0°-90°	2309.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2309.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1296	1296	1296	1296	1296	
5°	1298	1306	1321	1316	1308	123
15°	1253	1322	1445	1334	1266	352
25°	1096	1179	1332	1185	1109	501
35°	790	843	889	846	802	489
45°	451	458	350	460	460	356
55°	309	284	83	288	319	277
65°	187	164	15	167	193	185
75°	64	56	5	58	66	72
85°	7	7	2	7	7	10
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°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1287.8	1279.6	1302.7	1289.4	1291.1	1307.7	1294.4	1289.4	1306.0	1287.8	1296.1
5°	1297.7	1291.1	1314.2	1302.7	1304.4	1320.9	1309.3	1304.4	1322.5	1306.0	1314.2
7.5°	1296.1	1291.1	1312.6	1302.7	1304.4	1324.2	1312.6	1310.9	1332.5	1317.5	1329.2
10°	1282.9	1276.2	1299.4	1291.1	1294.4	1315.9	1306.0	1306.0	1330.8	1320.9	1337.4
12.5°	1269.6	1263.0	1286.1	1279.6	1282.9	1306.0	1299.4	1302.7	1330.8	1324.2	1345.7
15°	1253.1	1246.5	1271.3	1264.6	1267.9	1292.7	1289.4	1292.7	1324.2	1322.5	1347.3
17.5°	1225.0	1221.6	1243.1	1239.8	1243.1	1267.9	1266.3	1271.3	1306.0	1306.0	1337.4
20°	1188.6	1183.7	1206.8	1203.5	1205.1	1229.9	1229.9	1234.9	1271.3	1274.6	1306.0
22.5°	1145.6	1142.4	1165.5	1160.5	1163.8	1187.0	1187.0	1191.9	1226.6	1231.6	1264.6
25°	1096.1	1092.8	1114.2	1112.6	1114.2	1137.4	1135.7	1142.4	1175.4	1178.7	1210.1
27.5°	1036.5	1031.5	1053.0	1053.0	1054.7	1076.2	1076.2	1079.5	1109.3	1112.6	1142.4
30°	963.8	958.8	978.7	980.3	980.3	1001.8	1001.8	1003.4	1031.5	1033.2	1059.7
32.5°	881.2	881.2	896.0	897.7	897.7	917.5	919.1	919.1	943.9	943.9	965.4
35°	790.2	791.8	803.4	805.1	806.8	824.9	824.9	823.3	844.7	843.1	861.3
37.5°	692.7	692.7	704.2	705.9	705.9	722.4	722.4	720.7	739.0	734.0	747.2
40°	598.5	598.5	608.3	611.7	610.0	623.3	623.3	621.6	634.8	628.2	634.8
42.5°	515.8	519.1	525.7	527.4	525.7	537.2	535.6	533.9	543.9	533.9	535.6
45°	451.3	454.6	459.6	461.2	459.6	467.8	466.2	462.8	467.8	458.0	453.0
47.5°	403.4	405.0	413.2	411.7	410.0	416.6	416.6	410.0	411.7	398.4	388.5
50°	367.0	368.6	375.3	375.3	371.9	378.6	375.3	368.6	367.0	352.1	337.3
52.5°	337.3	338.9	345.5	345.5	342.2	347.1	343.8	333.9	332.3	317.4	299.2
55°	309.1	310.8	317.4	317.4	314.1	317.4	312.5	304.2	300.8	284.3	264.5
57.5°	284.3	282.7	287.7	287.7	284.3	286.0	282.7	274.4	267.8	252.9	233.1
60°	252.9	251.2	254.6	254.6	251.2	252.9	249.6	239.7	236.4	221.6	201.6
62.5°	218.2	218.2	221.6	221.6	218.2	218.2	216.6	206.6	203.3	190.1	173.6
65°	186.8	186.8	190.1	190.1	186.8	188.5	185.1	178.5	175.3	163.7	148.8
67.5°	155.4	155.4	157.0	157.0	155.4	155.4	153.7	148.8	143.8	135.5	122.3
70°	122.3	122.3	124.0	124.0	122.3	122.3	122.3	117.4	115.7	107.4	97.5
72.5°	90.9	90.9	92.6	92.6	92.6	94.2	92.6	89.2	85.9	81.0	72.7
75°	64.4	64.4	64.4	66.1	64.4	64.4	66.1	62.8	61.1	56.2	51.3
77.5°	43.0	43.0	43.0	43.0	43.0	44.6	43.0	43.0	41.3	38.0	34.8
80°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	24.8	24.8	21.5
82.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	13.2	11.6
85°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	5.0
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1294.4	1296.1	1296.1	1301.0	1306.0	1292.7	1299.4	1296.1	1292.7	1306.0	1297.7
5°	1315.9	1317.5	1317.5	1324.2	1330.8	1315.9	1322.5	1320.9	1317.5	1329.2	1320.9
7.5°	1332.5	1337.4	1340.7	1349.0	1357.2	1344.0	1352.3	1349.0	1347.3	1358.8	1347.3
10°	1344.0	1354.0	1358.8	1372.1	1383.6	1370.5	1382.0	1378.8	1377.1	1387.0	1373.8
12.5°	1357.2	1370.5	1383.6	1398.6	1415.1	1403.6	1418.4	1413.4	1413.4	1421.7	1405.1
15°	1365.5	1382.0	1400.2	1421.7	1441.5	1433.2	1449.8	1444.9	1444.9	1451.4	1433.2
17.5°	1357.2	1378.8	1400.2	1425.0	1448.2	1443.2	1461.4	1456.4	1454.7	1461.4	1439.9
20°	1329.2	1354.0	1378.8	1403.6	1429.9	1426.7	1446.5	1438.2	1439.9	1443.2	1421.7
22.5°	1284.5	1310.9	1335.7	1362.2	1387.0	1385.3	1403.6	1398.6	1396.9	1401.9	1378.8
25°	1231.6	1254.7	1277.9	1301.0	1325.8	1322.5	1340.7	1332.5	1334.0	1335.7	1315.9
27.5°	1160.5	1182.0	1200.2	1220.0	1243.1	1238.2	1256.4	1253.1	1248.1	1249.8	1233.3
30°	1072.9	1091.1	1104.3	1120.9	1139.0	1134.1	1150.6	1147.2	1144.0	1144.0	1134.1
32.5°	973.7	986.9	995.2	1006.7	1020.0	1015.0	1028.2	1025.0	1021.7	1021.7	1015.0
35°	862.9	871.2	871.2	877.8	887.7	879.5	891.0	889.4	884.5	886.0	884.5
37.5°	742.3	745.5	739.0	739.0	745.5	734.0	743.9	743.9	739.0	740.6	740.6
40°	624.9	623.3	610.0	603.4	603.4	591.8	600.1	598.5	595.2	596.8	600.1
42.5°	520.7	510.8	492.6	479.4	476.1	462.8	467.8	466.2	462.8	466.2	471.1
45°	433.2	414.9	390.1	371.9	363.7	350.5	352.1	350.5	348.8	352.1	360.4
47.5°	363.7	338.9	307.5	284.3	272.7	257.9	257.9	256.2	256.2	264.5	269.5
50°	309.1	279.4	243.0	216.6	200.1	186.8	183.5	181.8	183.5	190.1	200.1
52.5°	267.8	231.4	191.8	163.7	145.5	130.6	127.3	125.7	127.3	133.9	143.8
55°	231.4	193.4	152.1	120.7	100.9	87.6	82.6	82.6	82.6	90.9	100.9
57.5°	198.4	160.3	119.0	87.6	69.4	56.2	51.3	49.6	52.9	57.9	67.8
60°	170.3	133.9	94.2	66.1	47.9	36.3	31.4	31.4	31.4	38.0	47.9
62.5°	145.5	112.4	76.1	49.6	34.8	24.8	19.8	19.8	21.5	24.8	34.8
65°	124.0	95.9	64.4	43.0	28.1	19.8	16.5	14.8	16.5	19.8	28.1
67.5°	102.5	79.4	54.6	36.3	24.8	16.5	14.8	13.2	13.2	18.2	23.1
70°	81.0	62.8	44.6	29.8	19.8	13.2	11.6	10.0	11.6	14.8	19.8
72.5°	61.1	47.9	33.1	23.1	14.8	11.6	8.3	8.3	8.3	11.6	14.8
75°	43.0	34.8	24.8	16.5	10.0	6.6	6.6	5.0	6.6	8.3	10.0
77.5°	28.1	23.1	16.5	10.0	6.6	5.0	3.3	3.3	3.3	5.0	6.6
80°	18.2	14.8	10.0	6.6	5.0	3.3	1.7	1.7	1.7	3.3	3.3
82.5°	10.0	8.3	5.0	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7
85°	5.0	3.3	3.3	1.7	1.7	1.7	0.0	1.7	1.7	1.7	1.7
87.5°	1.7	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°	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1	1296.1
2.5°	1299.4	1294.4	1301.0	1306.0	1304.4	1299.4	1307.7	1294.4	1299.4	1294.4	1286.1
5°	1322.5	1317.5	1322.5	1325.8	1324.2	1315.9	1322.5	1310.9	1314.2	1307.7	1299.4
7.5°	1347.3	1340.7	1342.3	1344.0	1339.0	1327.5	1332.5	1317.5	1319.2	1310.9	1301.0
10°	1370.5	1360.5	1358.8	1355.6	1345.7	1330.8	1332.5	1314.2	1312.6	1301.0	1289.4
12.5°	1400.2	1383.6	1377.1	1370.5	1355.6	1335.7	1332.5	1310.9	1307.7	1294.4	1281.2
15°	1421.7	1403.6	1391.9	1378.8	1358.8	1334.0	1327.5	1302.7	1296.1	1281.2	1267.9
17.5°	1426.7	1403.6	1387.0	1370.5	1347.3	1317.5	1307.7	1281.2	1272.9	1256.4	1243.1
20°	1405.1	1380.4	1362.2	1340.7	1317.5	1282.9	1272.9	1244.8	1234.9	1220.0	1206.8
22.5°	1363.8	1335.7	1317.5	1296.1	1272.9	1239.8	1228.3	1201.8	1191.9	1177.0	1163.8
25°	1304.4	1277.9	1259.7	1239.8	1218.3	1185.3	1175.4	1150.6	1142.4	1127.4	1114.2
27.5°	1221.6	1196.8	1187.0	1167.2	1147.2	1119.2	1109.3	1087.8	1079.5	1069.6	1054.7
30°	1122.4	1101.0	1096.1	1077.8	1063.0	1038.2	1029.9	1011.7	1003.4	995.2	981.9
32.5°	1008.4	991.9	991.9	977.0	967.1	947.3	940.6	925.8	919.1	912.5	901.0
35°	879.5	867.9	874.5	864.6	859.7	846.4	841.4	829.9	824.9	819.9	808.4
37.5°	742.3	734.0	747.2	748.8	748.8	737.3	734.0	727.4	724.0	719.2	709.2
40°	606.7	605.0	624.9	628.2	638.1	631.5	633.1	628.2	624.9	621.6	615.0
42.5°	481.1	487.6	512.4	527.4	537.2	537.2	542.2	540.6	538.9	535.6	530.7
45°	373.6	386.9	416.6	434.8	454.6	459.6	467.8	467.8	469.5	467.8	462.8
47.5°	286.0	305.8	340.6	368.6	390.1	400.1	411.7	414.9	416.6	416.6	413.2
50°	216.6	241.4	281.0	312.5	342.2	355.4	368.6	373.6	380.2	378.6	375.3
52.5°	163.7	191.8	234.7	272.7	304.2	319.0	333.9	340.6	347.1	347.1	345.5
55°	120.7	150.5	196.8	236.4	269.5	287.7	302.5	309.1	317.4	319.0	317.4
57.5°	87.6	117.4	162.0	205.0	236.4	256.2	271.2	277.7	286.0	287.7	287.7
60°	64.4	94.2	137.2	176.9	206.6	226.4	238.1	246.4	252.9	256.2	256.2
62.5°	49.6	76.1	115.7	152.1	178.5	195.1	206.6	213.3	219.9	221.6	223.2
65°	41.3	64.4	97.5	129.0	152.1	167.0	176.9	183.5	188.5	190.1	190.1
67.5°	34.8	54.6	81.0	105.8	125.7	137.2	145.5	150.5	155.4	157.0	157.0
70°	28.1	43.0	64.4	84.3	99.2	109.1	115.7	120.7	124.0	124.0	124.0
72.5°	21.5	33.1	47.9	62.8	74.4	82.6	87.6	89.2	92.6	92.6	92.6
75°	14.8	23.1	34.8	44.6	51.3	57.9	61.1	62.8	64.4	66.1	64.4
77.5°	10.0	14.8	21.5	28.1	34.8	38.0	39.6	41.3	43.0	43.0	43.0
80°	6.6	10.0	13.2	18.2	21.5	23.1	24.8	24.8	26.5	26.5	26.5
82.5°	3.3	5.0	8.3	10.0	11.6	13.2	13.2	13.2	14.8	14.8	13.2
85°	1.7	1.7	3.3	5.0	5.0	6.6	6.6	6.6	6.6	6.6	6.6
87.5°	0.0	0.0	0.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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: P136551

CATALOG NUMBER: LD6A20D010TE ERW6A20940 6LW121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1296.1	1296.1	1296.1	1296.1
2.5°	1289.4	1292.7	1279.6	1296.1
5°	1301.0	1304.4	1291.1	1307.7
7.5°	1302.7	1304.4	1291.1	1307.7
10°	1291.1	1291.1	1277.9	1294.4
12.5°	1281.2	1279.6	1264.6	1281.2
15°	1266.3	1264.6	1249.8	1266.3
17.5°	1241.5	1239.8	1225.0	1239.8
20°	1203.5	1201.8	1188.6	1203.5
22.5°	1162.2	1158.9	1145.6	1158.9
25°	1114.2	1110.9	1097.6	1109.3
27.5°	1053.0	1049.8	1036.5	1048.1
30°	980.3	975.4	965.4	973.7
32.5°	897.7	894.3	882.8	892.7
35°	806.8	801.8	793.5	801.8
37.5°	707.5	704.2	696.0	700.9
40°	611.7	610.0	603.4	606.7
42.5°	529.0	525.7	520.7	524.1
45°	462.8	461.2	456.3	459.6
47.5°	413.2	411.7	406.7	410.0
50°	376.9	375.3	371.9	373.6
52.5°	347.1	345.5	342.2	347.1
55°	320.7	319.0	314.1	319.0
57.5°	291.0	289.3	284.3	291.0
60°	257.9	257.9	252.9	259.5
62.5°	224.8	224.8	221.6	226.4
65°	193.4	191.8	190.1	193.4
67.5°	158.7	157.0	157.0	160.3
70°	125.7	124.0	124.0	127.3
72.5°	94.2	92.6	92.6	94.2
75°	66.1	64.4	64.4	66.1
77.5°	43.0	43.0	43.0	43.0
80°	26.5	26.5	26.5	26.5
82.5°	14.8	14.8	13.2	14.8
85°	6.6	6.6	6.6	6.6
87.5°	1.7	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)