

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: P136550

Luminaire Tested: **LD6A20D010TE ERW6A20935 6LW121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136550
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 ERW6A20935 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 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2263.5 lumens
Efficiency: N/A
Efficacy: 69.0 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

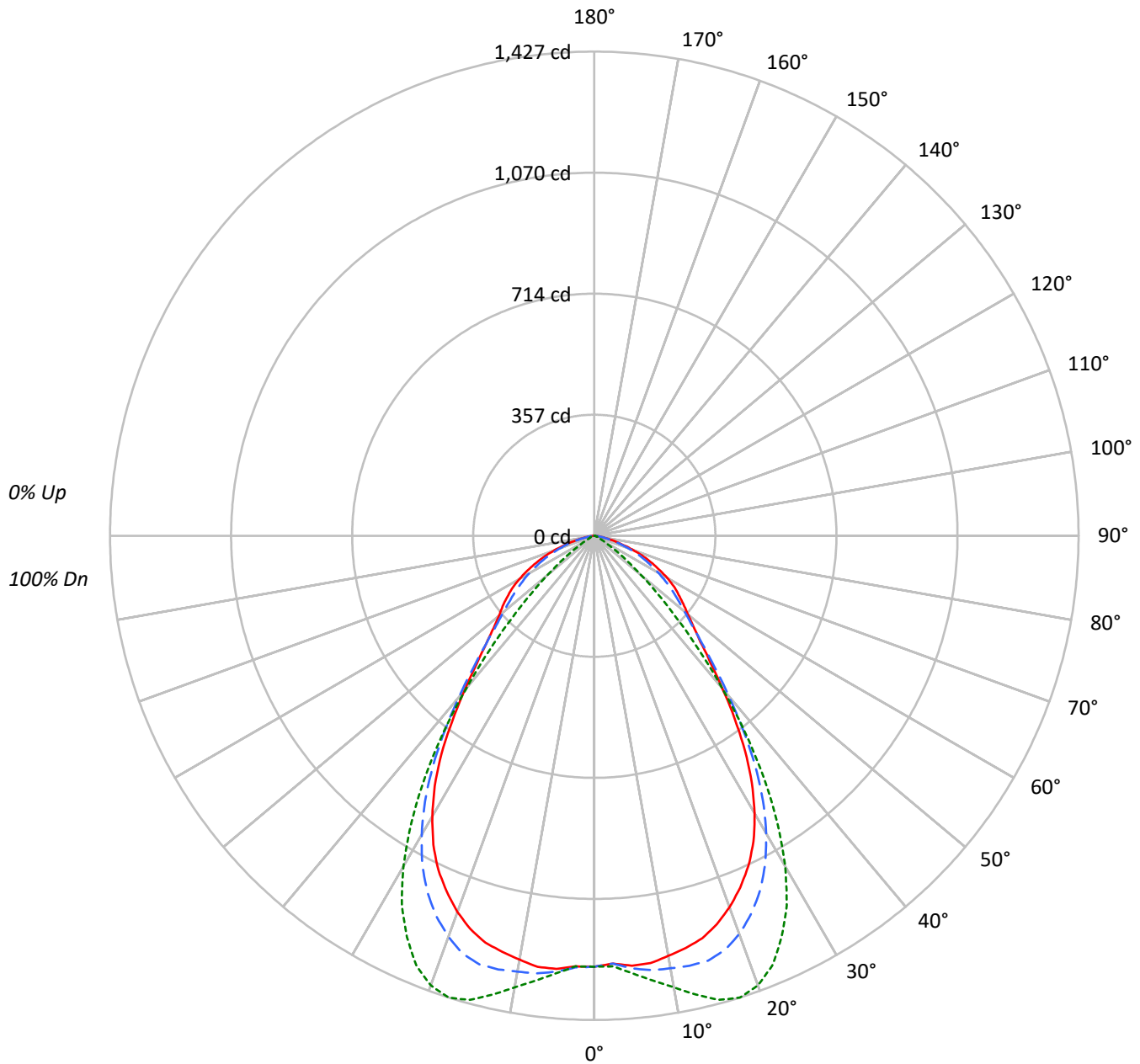
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89		
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79		
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70		
4	90	80	73	67	88	79	72	67	77	71	66	74	69	65	72	68	65	63		
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56		
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51		
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46		
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42		
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39		
10	61	49	42	38	60	49	42	38	48	42	38	47	42	37	46	41	37	36		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	82862	82862	82862
5°	83290	84777	83925
10°	83286	89513	84041
15°	82948	95640	83820
20°	80876	97865	81883
25°	77319	93998	78255
30°	71160	84705	71891
35°	61676	69426	62576
40°	49950	49950	50639
45°	40808	31684	41556
50°	36508	18087	37158
55°	34464	9213	35568
60°	32346	4019	33194
65°	28266	2254	29269
70°	22871	1850	23787
75°	15931	1235	16334
80°	9731	639	9731
85°	4866	1273	4866



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.5	5.5
10°-20°	370.2	16.4
20°-30°	538.6	23.8
30°-40°	511.9	22.6
40°-50°	331.6	14.7
50°-60°	208.0	9.2
60°-70°	124.4	5.5
70°-80°	48.5	2.1
80°-90°	6.7	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°	1032.4	45.6
0°-40°	1544.3	68.2
0°-60°	2083.9	92.1
0°-90°	2263.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2263.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1270	1270	1270	1270	1270	
5°	1272	1280	1294	1290	1282	121
15°	1228	1296	1416	1308	1241	345
25°	1074	1155	1306	1162	1087	491
35°	774	826	872	830	786	480
45°	442	449	343	450	450	349
55°	303	279	81	282	313	272
65°	183	160	15	164	190	181
75°	63	55	5	57	65	70
85°	6	6	2	6	6	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°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1262.1	1254.0	1276.7	1263.7	1265.4	1281.5	1268.6	1263.7	1279.9	1262.1	1270.1
5°	1271.8	1265.4	1288.0	1276.7	1278.3	1294.5	1283.1	1278.3	1296.1	1279.9	1288.0
7.5°	1270.1	1265.4	1286.4	1276.7	1278.3	1297.7	1286.4	1284.8	1305.8	1291.3	1302.6
10°	1257.2	1250.8	1273.5	1265.4	1268.6	1289.6	1279.9	1279.9	1304.3	1294.5	1310.7
12.5°	1244.2	1237.8	1260.5	1254.0	1257.2	1279.9	1273.5	1276.7	1304.3	1297.7	1318.8
15°	1228.1	1221.6	1245.9	1239.4	1242.7	1266.9	1263.7	1266.9	1297.7	1296.1	1320.4
17.5°	1200.5	1197.3	1218.3	1215.1	1218.3	1242.7	1241.0	1245.9	1279.9	1279.9	1310.7
20°	1164.9	1160.1	1182.7	1179.4	1181.1	1205.4	1205.4	1210.2	1245.9	1249.1	1279.9
22.5°	1122.7	1119.5	1142.2	1137.4	1140.6	1163.3	1163.3	1168.1	1202.1	1207.0	1239.4
25°	1074.1	1070.9	1092.0	1090.4	1092.0	1114.7	1113.0	1119.5	1151.9	1155.2	1186.0
27.5°	1015.9	1011.0	1032.0	1032.0	1033.7	1054.7	1054.7	1058.0	1087.1	1090.4	1119.5
30°	944.6	939.7	959.2	960.7	960.7	981.8	981.8	983.4	1011.0	1012.6	1038.5
32.5°	863.5	863.5	878.1	879.8	879.8	899.1	900.8	900.8	925.1	925.1	946.2
35°	774.4	776.0	787.4	789.0	790.6	808.4	808.4	806.8	827.9	826.3	844.1
37.5°	678.9	678.9	690.2	691.8	691.8	708.0	708.0	706.3	724.2	719.3	732.3
40°	586.5	586.5	596.3	599.5	597.8	610.8	610.8	609.2	622.2	615.6	622.2
42.5°	505.4	508.8	515.2	516.8	515.2	526.6	524.9	523.3	533.0	523.3	524.9
45°	442.3	445.5	450.4	452.1	450.4	458.5	456.9	453.6	458.5	448.7	443.9
47.5°	395.4	396.9	405.0	403.4	401.8	408.3	408.3	401.8	403.4	390.5	380.7
50°	359.7	361.3	367.8	367.8	364.6	371.0	367.8	361.3	359.7	345.1	330.5
52.5°	330.5	332.1	338.7	338.7	335.3	340.2	337.0	327.3	325.7	311.1	293.3
55°	303.0	304.6	311.1	311.1	307.9	311.1	306.2	298.1	294.9	278.6	259.3
57.5°	278.6	277.1	281.9	281.9	278.6	280.3	277.1	268.9	262.5	247.9	228.5
60°	247.9	246.3	249.5	249.5	246.3	247.9	244.6	234.9	231.7	217.1	197.7
62.5°	213.9	213.9	217.1	217.1	213.9	213.9	212.2	202.6	199.2	186.3	170.1
65°	183.1	183.1	186.3	186.3	183.1	184.7	181.4	175.0	171.8	160.4	145.8
67.5°	152.3	152.3	153.9	153.9	152.3	152.3	150.7	145.8	141.0	132.9	119.9
70°	119.9	119.9	121.5	121.5	119.9	119.9	119.9	115.1	113.4	105.3	95.6
72.5°	89.1	89.1	90.7	90.7	90.7	92.4	90.7	87.5	84.3	79.4	71.3
75°	63.2	63.2	63.2	64.8	63.2	63.2	64.8	61.6	59.9	55.0	50.2
77.5°	42.1	42.1	42.1	42.1	42.1	43.7	42.1	42.1	40.5	37.2	34.0
80°	25.9	25.9	25.9	25.9	25.9	25.9	25.9	25.9	24.3	24.3	21.0
82.5°	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	13.0	11.3
85°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	4.9
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°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1268.6	1270.1	1270.1	1275.0	1279.9	1266.9	1273.5	1270.1	1266.9	1279.9	1271.8
5°	1289.6	1291.3	1291.3	1297.7	1304.3	1289.6	1296.1	1294.5	1291.3	1302.6	1294.5
7.5°	1305.8	1310.7	1313.9	1322.1	1330.2	1317.2	1325.3	1322.1	1320.4	1331.7	1320.4
10°	1317.2	1326.9	1331.7	1344.7	1356.1	1343.1	1354.4	1351.2	1349.6	1359.3	1346.3
12.5°	1330.2	1343.1	1356.1	1370.6	1386.9	1375.5	1390.1	1385.2	1385.2	1393.3	1377.1
15°	1338.3	1354.4	1372.3	1393.3	1412.8	1404.7	1420.9	1416.0	1416.0	1422.5	1404.7
17.5°	1330.2	1351.2	1372.3	1396.6	1419.2	1414.3	1432.2	1427.3	1425.7	1432.2	1411.1
20°	1302.6	1326.9	1351.2	1375.5	1401.4	1398.2	1417.7	1409.6	1411.1	1414.3	1393.3
22.5°	1258.8	1284.8	1309.1	1335.0	1359.3	1357.6	1375.5	1370.6	1369.0	1373.9	1351.2
25°	1207.0	1229.7	1252.4	1275.0	1299.4	1296.1	1313.9	1305.8	1307.5	1309.1	1289.6
27.5°	1137.4	1158.4	1176.2	1195.6	1218.3	1213.4	1231.3	1228.1	1223.2	1224.8	1208.6
30°	1051.4	1069.3	1082.2	1098.5	1116.3	1111.4	1127.6	1124.4	1121.2	1121.2	1111.4
32.5°	954.3	967.3	975.3	986.6	999.6	994.7	1007.7	1004.5	1001.3	1001.3	994.7
35°	845.8	853.8	853.8	860.3	870.0	861.9	873.2	871.7	866.8	868.4	866.8
37.5°	727.5	730.7	724.2	724.2	730.7	719.3	729.0	729.0	724.2	725.8	725.8
40°	612.4	610.8	597.8	591.4	591.4	580.0	588.1	586.5	583.3	584.9	588.1
42.5°	510.3	500.6	482.8	469.9	466.6	453.6	458.5	456.9	453.6	456.9	461.7
45°	424.5	406.7	382.4	364.6	356.4	343.4	345.1	343.4	341.9	345.1	353.2
47.5°	356.4	332.1	301.3	278.6	267.3	252.7	252.7	251.2	251.2	259.3	264.1
50°	303.0	273.8	238.2	212.2	196.0	183.1	179.8	178.2	179.8	186.3	196.0
52.5°	262.5	226.8	187.9	160.4	142.5	128.0	124.7	123.1	124.7	131.2	141.0
55°	226.8	189.6	149.1	118.3	98.8	85.8	81.0	81.0	81.0	89.1	98.8
57.5°	194.4	157.1	116.6	85.8	68.0	55.0	50.2	48.6	51.8	56.7	66.4
60°	166.9	131.2	92.4	64.8	47.0	35.7	30.8	30.8	30.8	37.2	47.0
62.5°	142.5	110.2	74.5	48.6	34.0	24.3	19.5	19.5	21.0	24.3	34.0
65°	121.5	94.0	63.2	42.1	27.6	19.5	16.2	14.6	16.2	19.5	27.6
67.5°	100.4	77.7	53.5	35.7	24.3	16.2	14.6	13.0	13.0	17.8	22.7
70°	79.4	61.6	43.7	29.1	19.5	13.0	11.3	9.7	11.3	14.6	19.5
72.5°	59.9	47.0	32.4	22.7	14.6	11.3	8.1	8.1	8.1	11.3	14.6
75°	42.1	34.0	24.3	16.2	9.7	6.5	6.5	4.9	6.5	8.1	9.7
77.5°	27.6	22.7	16.2	9.7	6.5	4.9	3.2	3.2	3.2	4.9	6.5
80°	17.8	14.6	9.7	6.5	4.9	3.2	1.7	1.7	1.7	3.2	3.2
82.5°	9.7	8.1	4.9	3.2	3.2	1.7	1.7	1.7	1.7	1.7	1.7
85°	4.9	3.2	3.2	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°	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1	1270.1
2.5°	1273.5	1268.6	1275.0	1279.9	1278.3	1273.5	1281.5	1268.6	1273.5	1268.6	1260.5
5°	1296.1	1291.3	1296.1	1299.4	1297.7	1289.6	1296.1	1284.8	1288.0	1281.5	1273.5
7.5°	1320.4	1313.9	1315.6	1317.2	1312.3	1300.9	1305.8	1291.3	1292.9	1284.8	1275.0
10°	1343.1	1333.4	1331.7	1328.5	1318.8	1304.3	1305.8	1288.0	1286.4	1275.0	1263.7
12.5°	1372.3	1356.1	1349.6	1343.1	1328.5	1309.1	1305.8	1284.8	1281.5	1268.6	1255.6
15°	1393.3	1375.5	1364.2	1351.2	1331.7	1307.5	1300.9	1276.7	1270.1	1255.6	1242.7
17.5°	1398.2	1375.5	1359.3	1343.1	1320.4	1291.3	1281.5	1255.6	1247.5	1231.3	1218.3
20°	1377.1	1352.9	1335.0	1313.9	1291.3	1257.2	1247.5	1220.0	1210.2	1195.6	1182.7
22.5°	1336.6	1309.1	1291.3	1270.1	1247.5	1215.1	1203.8	1177.9	1168.1	1153.5	1140.6
25°	1278.3	1252.4	1234.6	1215.1	1194.1	1161.6	1151.9	1127.6	1119.5	1104.9	1092.0
27.5°	1197.3	1173.0	1163.3	1143.8	1124.4	1096.8	1087.1	1066.0	1058.0	1048.2	1033.7
30°	1100.0	1079.0	1074.1	1056.3	1041.8	1017.4	1009.3	991.5	983.4	975.3	962.4
32.5°	988.3	972.1	972.1	957.5	947.8	928.4	921.9	907.2	900.8	894.3	883.0
35°	861.9	850.5	857.1	847.3	842.4	829.5	824.6	813.3	808.4	803.6	792.3
37.5°	727.5	719.3	732.3	733.9	733.9	722.6	719.3	712.9	709.7	704.8	695.0
40°	594.6	592.9	612.4	615.6	625.4	618.9	620.5	615.6	612.4	609.2	602.7
42.5°	471.4	478.0	502.2	516.8	526.6	526.6	531.4	529.8	528.1	524.9	520.1
45°	366.1	379.1	408.3	426.1	445.5	450.4	458.5	458.5	460.1	458.5	453.6
47.5°	280.3	299.7	333.8	361.3	382.4	392.0	403.4	406.7	408.3	408.3	405.0
50°	212.2	236.6	275.4	306.2	335.3	348.3	361.3	366.1	372.7	371.0	367.8
52.5°	160.4	187.9	230.0	267.3	298.1	312.7	327.3	333.8	340.2	340.2	338.7
55°	118.3	147.4	192.8	231.7	264.1	281.9	296.5	303.0	311.1	312.7	311.1
57.5°	85.8	115.1	158.8	200.9	231.7	251.2	265.7	272.2	280.3	281.9	281.9
60°	63.2	92.4	134.4	173.3	202.6	221.9	233.3	241.4	247.9	251.2	251.2
62.5°	48.6	74.5	113.4	149.1	175.0	191.2	202.6	209.0	215.5	217.1	218.7
65°	40.5	63.2	95.6	126.4	149.1	163.7	173.3	179.8	184.7	186.3	186.3
67.5°	34.0	53.5	79.4	103.7	123.1	134.4	142.5	147.4	152.3	153.9	153.9
70°	27.6	42.1	63.2	82.6	97.2	107.0	113.4	118.3	121.5	121.5	121.5
72.5°	21.0	32.4	47.0	61.6	72.9	81.0	85.8	87.5	90.7	90.7	90.7
75°	14.6	22.7	34.0	43.7	50.2	56.7	59.9	61.6	63.2	64.8	63.2
77.5°	9.7	14.6	21.0	27.6	34.0	37.2	38.9	40.5	42.1	42.1	42.1
80°	6.5	9.7	13.0	17.8	21.0	22.7	24.3	24.3	25.9	25.9	25.9
82.5°	3.2	4.9	8.1	9.7	11.3	13.0	13.0	13.0	14.6	14.6	13.0
85°	1.7	1.7	3.2	4.9	4.9	6.5	6.5	6.5	6.5	6.5	6.5
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: P136550

CATALOG NUMBER: LD6A20D010TE ERW6A20935 6LW121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1270.1	1270.1	1270.1	1270.1
2.5°	1263.7	1266.9	1254.0	1270.1
5°	1275.0	1278.3	1265.4	1281.5
7.5°	1276.7	1278.3	1265.4	1281.5
10°	1265.4	1265.4	1252.4	1268.6
12.5°	1255.6	1254.0	1239.4	1255.6
15°	1241.0	1239.4	1224.8	1241.0
17.5°	1216.8	1215.1	1200.5	1215.1
20°	1179.4	1177.9	1164.9	1179.4
22.5°	1138.9	1135.7	1122.7	1135.7
25°	1092.0	1088.7	1075.8	1087.1
27.5°	1032.0	1028.8	1015.9	1027.2
30°	960.7	955.9	946.2	954.3
32.5°	879.8	876.5	865.1	874.9
35°	790.6	785.7	777.7	785.7
37.5°	693.4	690.2	682.1	687.0
40°	599.5	597.8	591.4	594.6
42.5°	518.4	515.2	510.3	513.6
45°	453.6	452.1	447.2	450.4
47.5°	405.0	403.4	398.6	401.8
50°	369.4	367.8	364.6	366.1
52.5°	340.2	338.7	335.3	340.2
55°	314.3	312.7	307.9	312.7
57.5°	285.2	283.5	278.6	285.2
60°	252.7	252.7	247.9	254.4
62.5°	220.4	220.4	217.1	221.9
65°	189.6	187.9	186.3	189.6
67.5°	155.5	153.9	153.9	157.1
70°	123.1	121.5	121.5	124.7
72.5°	92.4	90.7	90.7	92.4
75°	64.8	63.2	63.2	64.8
77.5°	42.1	42.1	42.1	42.1
80°	25.9	25.9	25.9	25.9
82.5°	14.6	14.6	13.0	14.6
85°	6.5	6.5	6.5	6.5
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)