

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: P136549

Luminaire Tested: **LD6A20D010TE ERW6A20930 6LW121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136549
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 ERW6A20930 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 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2206.4 lumens
Efficiency: N/A
Efficacy: 67.3 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

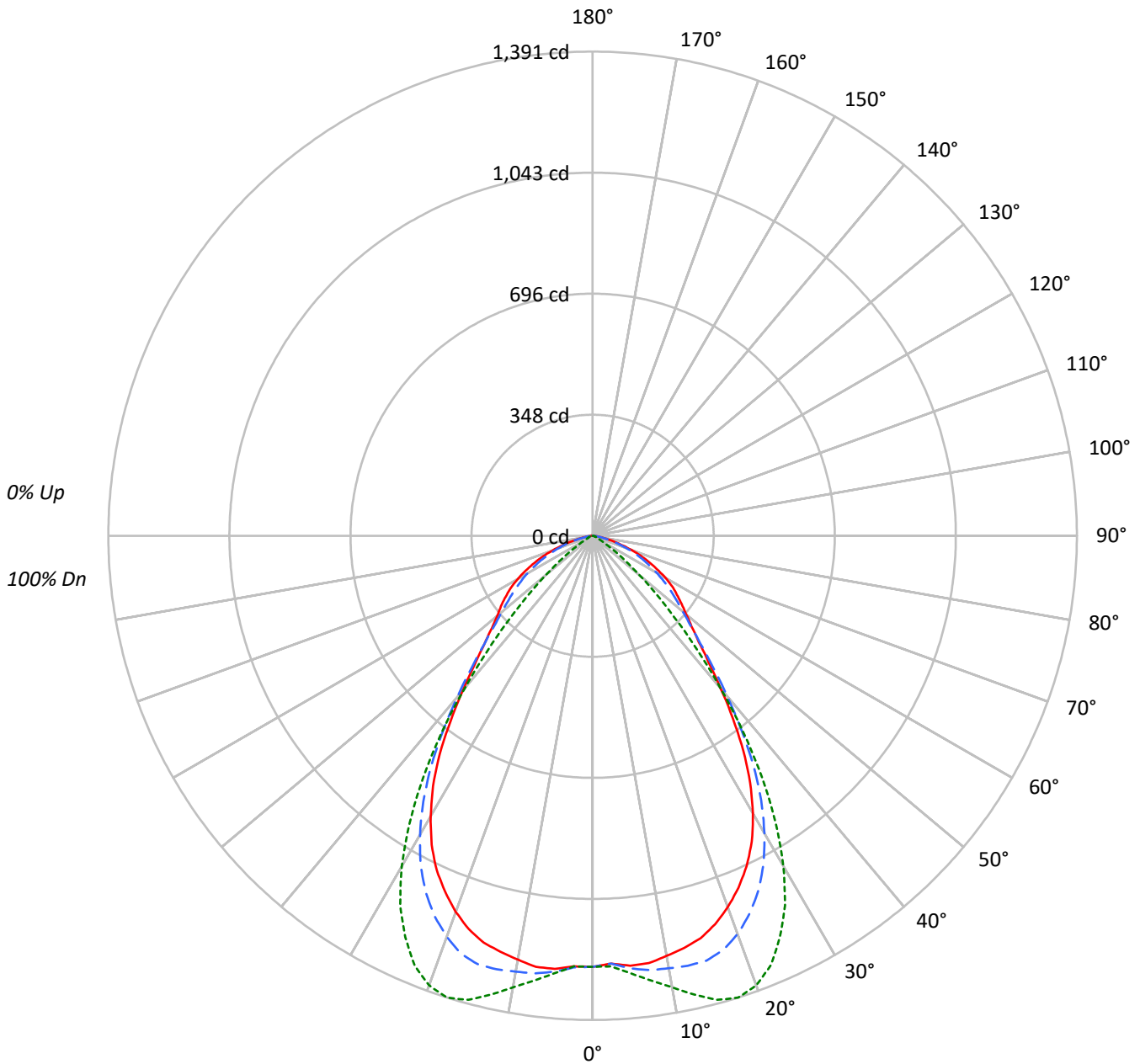
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
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°	80781	80781	80781
5°	81188	82635	81803
10°	81186	87254	81915
15°	80848	93222	81706
20°	78828	95394	79814
25°	75368	91623	76283
30°	69359	82565	70075
35°	60115	67666	60999
40°	48681	48681	49362
45°	39775	30890	40513
50°	35574	17630	36224
55°	33588	8974	34669
60°	31537	3914	32346
65°	27540	2192	28528
70°	22280	1812	23195
75°	15528	1185	15931
80°	9505	601	9505
85°	4791	1198	4791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	5.5
10°-20°	360.9	16.4
20°-30°	525.0	23.8
30°-40°	498.9	22.6
40°-50°	323.2	14.7
50°-60°	202.8	9.2
60°-70°	121.3	5.5
70°-80°	47.3	2.1
80°-90°	6.5	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°	1006.3	45.6
0°-40°	1505.3	68.2
0°-60°	2031.3	92.1
0°-90°	2206.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2206.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1238	1238	1238	1238	1238	
5°	1240	1248	1262	1257	1249	118
15°	1197	1263	1380	1274	1210	336
25°	1047	1126	1273	1132	1060	478
35°	755	805	850	809	766	468
45°	431	438	335	439	439	340
55°	295	272	79	275	305	265
65°	178	156	14	160	185	177
75°	62	54	5	55	63	69
85°	6	6	2	6	6	9
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°	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2
2.5°	1230.2	1222.3	1244.4	1231.8	1233.4	1249.1	1236.5	1231.8	1247.6	1230.2	1238.2
5°	1239.7	1233.4	1255.5	1244.4	1246.0	1261.8	1250.8	1246.0	1263.4	1247.6	1255.5
7.5°	1238.2	1233.4	1253.9	1244.4	1246.0	1265.0	1253.9	1252.4	1272.8	1258.6	1269.7
10°	1225.5	1219.2	1241.3	1233.4	1236.5	1257.1	1247.6	1247.6	1271.3	1261.8	1277.6
12.5°	1212.9	1206.5	1228.7	1222.3	1225.5	1247.6	1241.3	1244.4	1271.3	1265.0	1285.5
15°	1197.0	1190.8	1214.5	1208.1	1211.2	1234.9	1231.8	1234.9	1265.0	1263.4	1287.1
17.5°	1170.2	1167.1	1187.5	1184.4	1187.5	1211.2	1209.7	1214.5	1247.6	1247.6	1277.6
20°	1135.4	1130.7	1152.9	1149.6	1151.3	1174.9	1174.9	1179.7	1214.5	1217.6	1247.6
22.5°	1094.4	1091.3	1113.3	1108.6	1111.7	1133.9	1133.9	1138.6	1171.8	1176.6	1208.1
25°	1047.0	1043.9	1064.4	1062.8	1064.4	1086.5	1084.9	1091.3	1122.8	1125.9	1156.0
27.5°	990.1	985.4	1006.0	1006.0	1007.6	1028.1	1028.1	1031.3	1059.7	1062.8	1091.3
30°	920.7	915.9	934.9	936.5	936.5	957.0	957.0	958.6	985.4	987.0	1012.3
32.5°	841.7	841.7	856.0	857.6	857.6	876.5	878.0	878.0	901.7	901.7	922.3
35°	754.8	756.4	767.5	769.0	770.7	788.0	788.0	786.5	807.0	805.4	822.8
37.5°	661.7	661.7	672.8	674.4	674.4	690.1	690.1	688.5	705.9	701.2	713.8
40°	571.6	571.6	581.1	584.3	582.7	595.3	595.3	593.8	606.4	600.1	606.4
42.5°	492.7	495.9	502.2	503.8	502.2	513.3	511.7	510.1	519.5	510.1	511.7
45°	431.1	434.3	439.1	440.6	439.1	446.9	445.3	442.2	446.9	437.5	432.7
47.5°	385.3	386.9	394.8	393.2	391.7	397.9	397.9	391.7	393.2	380.6	371.1
50°	350.5	352.2	358.5	358.5	355.3	361.6	358.5	352.2	350.5	336.3	322.1
52.5°	322.1	323.7	330.1	330.1	326.9	331.6	328.5	319.0	317.4	303.2	285.8
55°	295.3	296.9	303.2	303.2	300.0	303.2	298.5	290.6	287.4	271.6	252.7
57.5°	271.6	270.1	274.8	274.8	271.6	273.2	270.1	262.1	255.9	241.7	222.7
60°	241.7	240.0	243.2	243.2	240.0	241.7	238.4	229.0	225.8	211.6	192.7
62.5°	208.5	208.5	211.6	211.6	208.5	208.5	206.9	197.4	194.3	181.6	165.8
65°	178.4	178.4	181.6	181.6	178.4	180.1	176.8	170.6	167.4	156.4	142.2
67.5°	148.4	148.4	150.0	150.0	148.4	148.4	146.9	142.2	137.4	129.5	116.8
70°	116.8	116.8	118.5	118.5	116.8	116.8	116.8	112.1	110.5	102.6	93.2
72.5°	86.9	86.9	88.4	88.4	88.4	90.0	88.4	85.3	82.2	77.4	69.5
75°	61.6	61.6	61.6	63.2	61.6	61.6	63.2	60.0	58.5	53.7	49.0
77.5°	41.0	41.0	41.0	41.0	41.0	42.6	41.0	41.0	39.5	36.3	33.2
80°	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	23.7	23.7	20.6
82.5°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	12.6	11.1
85°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	4.7
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2
2.5°	1236.5	1238.2	1238.2	1242.9	1247.6	1234.9	1241.3	1238.2	1234.9	1247.6	1239.7
5°	1257.1	1258.6	1258.6	1265.0	1271.3	1257.1	1263.4	1261.8	1258.6	1269.7	1261.8
7.5°	1272.8	1277.6	1280.8	1288.7	1296.5	1283.9	1291.8	1288.7	1287.1	1298.1	1287.1
10°	1283.9	1293.4	1298.1	1310.7	1321.8	1309.1	1320.2	1317.1	1315.5	1325.0	1312.4
12.5°	1296.5	1309.1	1321.8	1336.1	1351.8	1340.8	1355.0	1350.3	1350.3	1358.1	1342.3
15°	1304.4	1320.2	1337.6	1358.1	1377.1	1369.2	1385.0	1380.2	1380.2	1386.6	1369.2
17.5°	1296.5	1317.1	1337.6	1361.3	1383.4	1378.7	1396.0	1391.3	1389.7	1396.0	1375.5
20°	1269.7	1293.4	1317.1	1340.8	1366.0	1362.9	1381.8	1374.0	1375.5	1378.7	1358.1
22.5°	1227.1	1252.4	1276.0	1301.3	1325.0	1323.4	1340.8	1336.1	1334.4	1339.2	1317.1
25°	1176.6	1198.6	1220.7	1242.9	1266.6	1263.4	1280.8	1272.8	1274.5	1276.0	1257.1
27.5°	1108.6	1129.2	1146.5	1165.5	1187.5	1182.8	1200.2	1197.0	1192.3	1193.9	1178.1
30°	1024.9	1042.3	1055.0	1070.7	1088.1	1083.4	1099.1	1096.0	1092.8	1092.8	1083.4
32.5°	930.2	942.8	950.7	961.7	974.4	969.7	982.3	979.2	975.9	975.9	969.7
35°	824.4	832.3	832.3	838.6	848.1	840.1	851.2	849.6	844.9	846.5	844.9
37.5°	709.1	712.2	705.9	705.9	712.2	701.2	710.7	710.7	705.9	707.5	707.5
40°	596.9	595.3	582.7	576.4	576.4	565.4	573.3	571.6	568.5	570.1	573.3
42.5°	497.4	488.0	470.6	458.0	454.8	442.2	446.9	445.3	442.2	445.3	450.1
45°	413.8	396.4	372.7	355.3	347.4	334.8	336.3	334.8	333.2	336.3	344.3
47.5°	347.4	323.7	293.7	271.6	260.6	246.4	246.4	244.8	244.8	252.7	257.4
50°	295.3	266.9	232.2	206.9	191.1	178.4	175.3	173.7	175.3	181.6	191.1
52.5°	255.9	221.1	183.2	156.4	138.9	124.7	121.6	120.0	121.6	127.9	137.4
55°	221.1	184.8	145.3	115.2	96.3	83.7	78.9	78.9	78.9	86.9	96.3
57.5°	189.5	153.1	113.7	83.7	66.3	53.7	49.0	47.4	50.5	55.2	64.7
60°	162.6	127.9	90.0	63.2	45.8	34.8	30.0	30.0	30.0	36.3	45.8
62.5°	138.9	107.4	72.7	47.4	33.2	23.7	19.0	19.0	20.6	23.7	33.2
65°	118.5	91.6	61.6	41.0	26.8	19.0	15.8	14.2	15.8	19.0	26.8
67.5°	97.9	75.8	52.1	34.8	23.7	15.8	14.2	12.6	12.6	17.3	22.1
70°	77.4	60.0	42.6	28.4	19.0	12.6	11.1	9.5	11.1	14.2	19.0
72.5°	58.5	45.8	31.6	22.1	14.2	11.1	7.9	7.9	7.9	11.1	14.2
75°	41.0	33.2	23.7	15.8	9.5	6.4	6.4	4.7	6.4	7.9	9.5
77.5°	26.8	22.1	15.8	9.5	6.4	4.7	3.1	3.1	3.1	4.7	6.4
80°	17.3	14.2	9.5	6.4	4.7	3.1	1.6	1.6	1.6	3.1	3.1
82.5°	9.5	7.9	4.7	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6
85°	4.7	3.1	3.1	1.6	1.6	1.6	0.0	1.6	1.6	1.6	1.6
87.5°	1.6	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°	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2	1238.2
2.5°	1241.3	1236.5	1242.9	1247.6	1246.0	1241.3	1249.1	1236.5	1241.3	1236.5	1228.7
5°	1263.4	1258.6	1263.4	1266.6	1265.0	1257.1	1263.4	1252.4	1255.5	1249.1	1241.3
7.5°	1287.1	1280.8	1282.3	1283.9	1279.2	1268.1	1272.8	1258.6	1260.2	1252.4	1242.9
10°	1309.1	1299.7	1298.1	1294.9	1285.5	1271.3	1272.8	1255.5	1253.9	1242.9	1231.8
12.5°	1337.6	1321.8	1315.5	1309.1	1294.9	1276.0	1272.8	1252.4	1249.1	1236.5	1223.9
15°	1358.1	1340.8	1329.7	1317.1	1298.1	1274.5	1268.1	1244.4	1238.2	1223.9	1211.2
17.5°	1362.9	1340.8	1325.0	1309.1	1287.1	1258.6	1249.1	1223.9	1216.0	1200.2	1187.5
20°	1342.3	1318.6	1301.3	1280.8	1258.6	1225.5	1216.0	1189.2	1179.7	1165.5	1152.9
22.5°	1302.9	1276.0	1258.6	1238.2	1216.0	1184.4	1173.3	1148.1	1138.6	1124.4	1111.7
25°	1246.0	1220.7	1203.4	1184.4	1163.9	1132.3	1122.8	1099.1	1091.3	1077.0	1064.4
27.5°	1167.1	1143.4	1133.9	1115.0	1096.0	1069.2	1059.7	1039.1	1031.3	1021.8	1007.6
30°	1072.3	1051.7	1047.0	1029.7	1015.4	991.8	983.9	966.5	958.6	950.7	938.0
32.5°	963.3	947.5	947.5	933.3	923.8	904.9	898.6	884.4	878.0	871.8	860.7
35°	840.1	829.1	835.4	825.9	821.2	808.6	803.8	792.7	788.0	783.3	772.3
37.5°	709.1	701.2	713.8	715.4	715.4	704.3	701.2	694.8	691.7	687.0	677.5
40°	579.6	578.0	596.9	600.1	609.6	603.3	604.8	600.1	596.9	593.8	587.5
42.5°	459.5	465.9	489.6	503.8	513.3	513.3	518.0	516.4	514.8	511.7	506.9
45°	356.9	369.5	397.9	415.4	434.3	439.1	446.9	446.9	448.5	446.9	442.2
47.5°	273.2	292.2	325.3	352.2	372.7	382.2	393.2	396.4	397.9	397.9	394.8
50°	206.9	230.6	268.5	298.5	326.9	339.6	352.2	356.9	363.3	361.6	358.5
52.5°	156.4	183.2	224.2	260.6	290.6	304.8	319.0	325.3	331.6	331.6	330.1
55°	115.2	143.7	187.9	225.8	257.4	274.8	289.0	295.3	303.2	304.8	303.2
57.5°	83.7	112.1	154.8	195.8	225.8	244.8	259.0	265.4	273.2	274.8	274.8
60°	61.6	90.0	131.1	169.0	197.4	216.4	227.4	235.3	241.7	244.8	244.8
62.5°	47.4	72.7	110.5	145.3	170.6	186.3	197.4	203.8	210.0	211.6	213.2
65°	39.5	61.6	93.2	123.2	145.3	159.5	169.0	175.3	180.1	181.6	181.6
67.5°	33.2	52.1	77.4	101.1	120.0	131.1	138.9	143.7	148.4	150.0	150.0
70°	26.8	41.0	61.6	80.6	94.8	104.2	110.5	115.2	118.5	118.5	118.5
72.5°	20.6	31.6	45.8	60.0	71.1	78.9	83.7	85.3	88.4	88.4	88.4
75°	14.2	22.1	33.2	42.6	49.0	55.2	58.5	60.0	61.6	63.2	61.6
77.5°	9.5	14.2	20.6	26.8	33.2	36.3	37.9	39.5	41.0	41.0	41.0
80°	6.4	9.5	12.6	17.3	20.6	22.1	23.7	23.7	25.3	25.3	25.3
82.5°	3.1	4.7	7.9	9.5	11.1	12.6	12.6	12.6	14.2	14.2	12.6
85°	1.6	1.6	3.1	4.7	4.7	6.4	6.4	6.4	6.4	6.4	6.4
87.5°	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P136549

CATALOG NUMBER: LD6A20D010TE ERW6A20930 6LW121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1238.2	1238.2	1238.2	1238.2
2.5°	1231.8	1234.9	1222.3	1238.2
5°	1242.9	1246.0	1233.4	1249.1
7.5°	1244.4	1246.0	1233.4	1249.1
10°	1233.4	1233.4	1220.7	1236.5
12.5°	1223.9	1222.3	1208.1	1223.9
15°	1209.7	1208.1	1193.9	1209.7
17.5°	1186.0	1184.4	1170.2	1184.4
20°	1149.6	1148.1	1135.4	1149.6
22.5°	1110.2	1107.0	1094.4	1107.0
25°	1064.4	1061.2	1048.6	1059.7
27.5°	1006.0	1002.8	990.1	1001.2
30°	936.5	931.8	922.3	930.2
32.5°	857.6	854.3	843.4	852.8
35°	770.7	765.9	758.1	765.9
37.5°	675.9	672.8	664.9	669.6
40°	584.3	582.7	576.4	579.6
42.5°	505.3	502.2	497.4	500.6
45°	442.2	440.6	435.8	439.1
47.5°	394.8	393.2	388.5	391.7
50°	360.0	358.5	355.3	356.9
52.5°	331.6	330.1	326.9	331.6
55°	306.4	304.8	300.0	304.8
57.5°	278.0	276.3	271.6	278.0
60°	246.4	246.4	241.7	247.9
62.5°	214.7	214.7	211.6	216.4
65°	184.8	183.2	181.6	184.8
67.5°	151.6	150.0	150.0	153.1
70°	120.0	118.5	118.5	121.6
72.5°	90.0	88.4	88.4	90.0
75°	63.2	61.6	61.6	63.2
77.5°	41.0	41.0	41.0	41.0
80°	25.3	25.3	25.3	25.3
82.5°	14.2	14.2	12.6	14.2
85°	6.4	6.4	6.4	6.4
87.5°	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)