

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: P252156

Luminaire Tested: **LD6B20D010 EU6B10208035 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252156  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20D010 EU6B10208035 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2659.0 lumens  
Efficiency: N/A  
Efficacy: 127.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

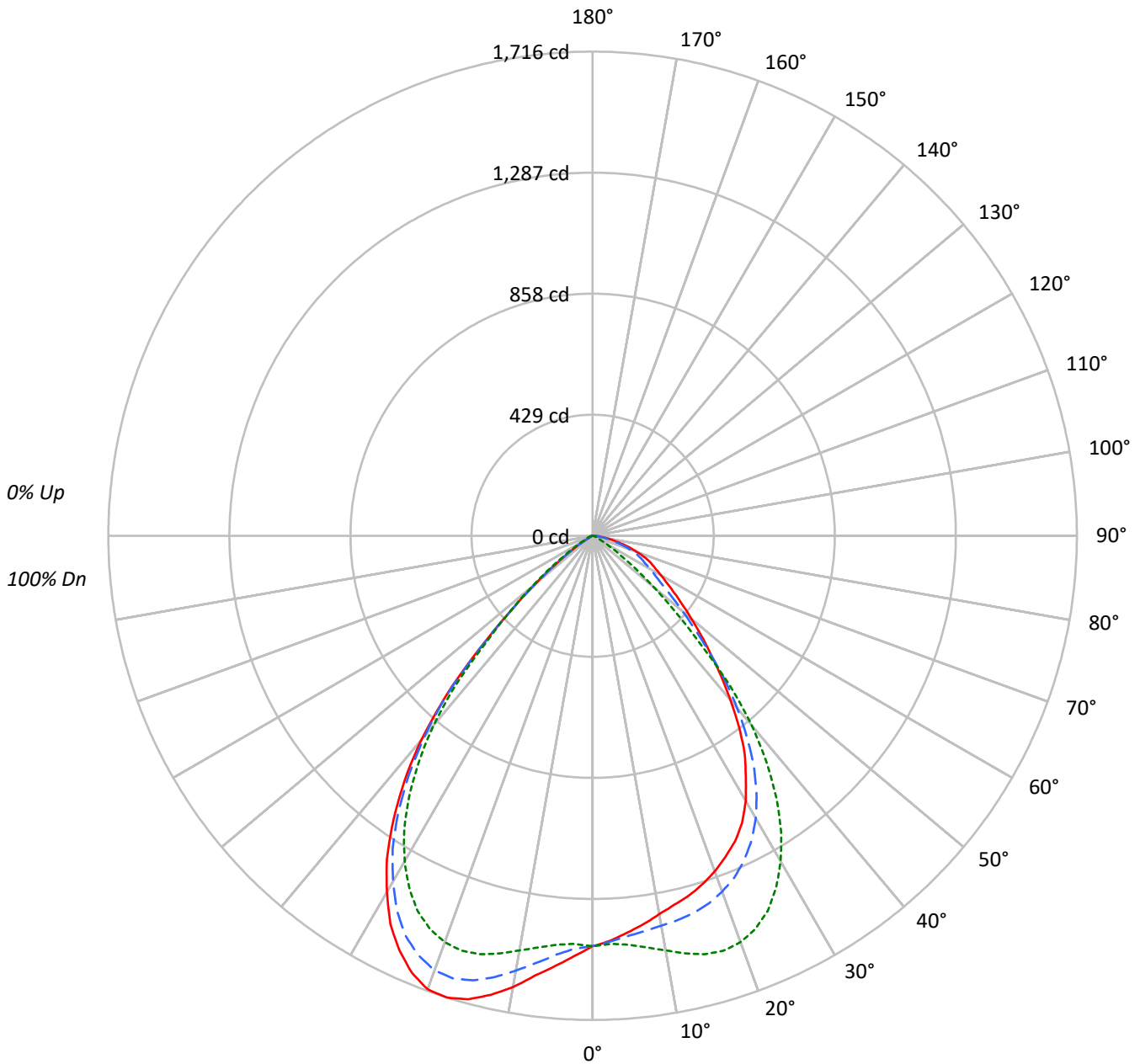
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80																			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72																			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48																			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40																			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	94906	94906	94906
5°	92445	95268	100278
10°	90195	98854	107605
15°	89142	103697	114876
20°	87861	106405	118763
25°	85993	105616	116630
30°	81722	100367	109798
35°	74762	90492	98026
40°	64666	74733	80422
45°	54537	49020	52609
50°	46303	28368	26673
55°	40174	13604	10282
60°	36287	6354	2544
65°	35212	3643	864
70°	31569	2918	801
75°	25938	2092	353
80°	19349	1052	0
85°	16693	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.5	5.3
10°-20°	428.2	16.1
20°-30°	654.3	24.6
30°-40°	684.3	25.7
40°-50°	443.9	16.7
50°-60°	176.3	6.6
60°-70°	83.6	3.1
70°-80°	39.8	1.5
80°-90°	8.1	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°	1223.0	46.0
0°-40°	1907.3	71.7
0°-60°	2527.5	95.1
0°-90°	2659.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2659.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1455	1455	1455	1455	1455	
5°	1412	1424	1455	1491	1531	133
15°	1320	1384	1535	1631	1701	372
25°	1195	1270	1467	1566	1620	547
35°	939	996	1136	1203	1231	581
45°	591	586	531	563	570	460
55°	353	300	120	93	90	320
65°	228	189	24	6	6	223
75°	103	83	8	3	1	111
85°	22	14	0	0	0	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7
2.5°	1436.6	1439.4	1424.1	1419.9	1431.0	1435.2	1436.6	1432.4	1433.8	1439.4	1439.4
5°	1411.6	1414.4	1400.4	1396.3	1407.4	1410.2	1414.4	1413.0	1417.1	1425.5	1424.1
7.5°	1387.9	1392.1	1376.8	1371.2	1385.1	1392.1	1394.9	1394.9	1400.4	1411.6	1413.0
10°	1361.5	1367.1	1353.2	1350.4	1365.7	1372.6	1374.0	1376.8	1385.1	1400.4	1403.2
12.5°	1339.3	1344.8	1335.1	1330.9	1347.6	1354.6	1357.3	1362.9	1372.6	1392.1	1394.9
15°	1319.8	1324.0	1312.8	1310.0	1326.7	1335.1	1336.5	1344.8	1357.3	1379.6	1383.8
17.5°	1294.8	1297.5	1289.2	1286.4	1303.1	1311.4	1312.8	1322.6	1337.9	1360.1	1367.1
20°	1265.5	1268.3	1260.0	1257.2	1273.9	1283.6	1285.0	1293.4	1311.4	1335.1	1342.0
22.5°	1230.8	1236.3	1226.6	1223.8	1240.5	1248.9	1253.0	1260.0	1278.1	1301.7	1311.4
25°	1194.6	1194.6	1187.7	1186.3	1201.6	1211.3	1209.9	1219.7	1237.7	1261.4	1269.7
27.5°	1147.3	1145.9	1139.0	1137.6	1154.3	1162.6	1159.9	1169.6	1186.3	1209.9	1218.3
30°	1084.8	1087.5	1077.8	1075.0	1088.9	1102.8	1101.4	1111.2	1127.9	1150.1	1155.7
32.5°	1009.7	1012.4	1011.0	1006.9	1019.4	1026.3	1030.5	1037.5	1051.4	1075.0	1080.6
35°	938.7	934.6	929.0	929.0	941.5	952.6	948.5	956.8	970.7	994.4	995.7
37.5°	851.1	849.7	846.9	844.2	858.1	860.8	862.2	867.8	880.3	899.8	897.0
40°	759.3	760.7	759.3	753.8	762.1	773.2	771.8	774.6	785.8	799.7	795.5
42.5°	673.1	673.1	673.1	667.5	677.3	682.8	685.6	684.2	687.0	699.5	694.0
45°	591.1	592.4	591.1	589.7	591.1	593.8	591.1	589.7	589.7	593.8	585.5
47.5°	520.1	520.1	516.0	511.8	516.0	517.3	513.2	509.0	507.6	506.2	492.3
50°	456.2	454.8	453.4	446.4	450.6	452.0	446.4	443.6	438.1	431.1	414.4
52.5°	400.5	399.1	397.7	390.8	393.6	395.0	389.4	383.8	376.9	371.3	350.5
55°	353.2	351.8	351.8	347.7	344.9	347.7	342.1	337.9	328.2	321.3	300.4
57.5°	312.9	312.9	310.1	306.0	307.3	307.3	301.8	296.2	287.9	279.5	262.8
60°	278.1	278.1	278.1	274.0	274.0	274.0	271.2	265.6	258.7	250.3	233.6
62.5°	250.3	250.3	248.9	244.8	246.2	246.2	243.4	237.8	230.9	225.3	208.6
65°	228.1	228.1	228.1	223.9	223.9	225.3	222.5	217.0	211.4	204.4	189.1
67.5°	200.3	198.9	198.9	196.1	197.5	198.9	196.1	191.9	185.0	180.8	166.9
70°	165.5	166.9	168.3	164.1	165.5	165.5	164.1	159.9	155.8	151.6	139.1
72.5°	134.9	134.9	133.5	132.1	132.1	133.5	130.7	126.6	123.8	121.0	111.3
75°	102.9	101.5	102.9	100.1	100.1	100.1	97.3	96.0	94.6	90.4	83.4
77.5°	75.1	73.7	73.7	70.9	72.3	72.3	70.9	68.1	65.4	64.0	58.4
80°	51.5	51.5	51.5	50.1	50.1	48.7	48.7	47.3	44.5	43.1	40.3
82.5°	34.8	34.8	34.8	33.4	33.4	33.4	32.0	30.6	29.2	27.8	25.0
85°	22.3	22.3	22.3	20.9	20.9	20.9	19.5	19.5	18.1	16.7	13.9
87.5°	12.5	12.5	12.5	11.1	11.1	11.1	11.1	11.1	9.7	8.3	7.0
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7
2.5°	1449.1	1429.7	1442.2	1442.2	1438.0	1449.1	1456.1	1461.6	1460.2	1447.7	1446.3
5°	1438.0	1421.3	1435.2	1436.6	1432.4	1447.7	1457.5	1464.4	1465.8	1454.7	1456.1
7.5°	1429.7	1415.7	1433.8	1439.4	1438.0	1451.9	1463.0	1474.2	1479.7	1471.4	1472.8
10°	1425.5	1414.4	1433.8	1442.2	1443.6	1458.9	1475.5	1490.8	1497.8	1492.2	1496.4
12.5°	1419.9	1413.0	1435.2	1447.7	1453.3	1468.6	1489.5	1507.5	1518.7	1515.9	1524.2
15°	1414.4	1408.8	1435.2	1453.3	1460.2	1474.2	1497.8	1524.2	1536.7	1535.3	1546.5
17.5°	1400.4	1399.1	1426.9	1446.3	1456.1	1472.8	1495.0	1527.0	1539.5	1542.3	1556.2
20°	1378.2	1378.2	1408.8	1429.7	1440.8	1456.1	1483.9	1514.5	1529.8	1532.6	1547.9
22.5°	1347.6	1350.4	1379.6	1400.4	1417.1	1428.3	1457.5	1489.5	1503.4	1507.5	1524.2
25°	1307.3	1310.0	1337.9	1358.7	1376.8	1389.3	1417.1	1446.3	1463.0	1467.2	1479.7
27.5°	1254.4	1260.0	1286.4	1307.3	1322.6	1330.9	1360.1	1390.7	1403.2	1407.4	1419.9
30°	1193.2	1194.6	1221.0	1239.1	1254.4	1261.4	1286.4	1318.4	1328.1	1332.3	1350.4
32.5°	1118.1	1116.7	1141.8	1158.5	1171.0	1179.3	1205.7	1226.6	1236.3	1243.3	1253.0
35°	1027.7	1026.3	1044.4	1063.9	1073.6	1076.4	1102.8	1125.1	1130.6	1136.2	1148.7
37.5°	926.2	926.2	941.5	951.2	962.4	966.5	979.1	1004.1	1013.8	1012.4	1022.2
40°	819.1	813.6	824.7	834.4	837.2	838.6	851.1	870.6	877.5	877.5	884.5
42.5°	706.5	698.1	699.5	705.1	707.9	698.1	706.5	719.0	714.8	720.4	721.8
45°	586.9	574.4	568.8	556.3	559.1	549.3	543.8	546.5	545.2	531.3	534.0
47.5°	489.5	467.3	457.5	439.5	435.3	424.2	417.2	404.7	393.6	393.6	386.6
50°	407.5	385.2	365.8	344.9	337.9	328.2	312.9	296.2	287.9	279.5	272.6
52.5°	342.1	318.5	294.8	272.6	262.8	250.3	229.5	212.8	197.5	189.1	180.8
55°	289.3	262.8	237.8	214.2	201.7	189.1	168.3	148.8	130.7	119.6	112.6
57.5°	248.9	223.9	197.5	172.4	161.3	147.4	125.2	104.3	87.6	75.1	68.1
60°	219.7	194.7	171.1	144.6	133.5	119.6	96.0	76.5	59.8	48.7	40.3
62.5°	194.7	172.4	147.4	123.8	112.6	98.7	76.5	57.0	41.7	30.6	23.6
65°	176.6	154.4	133.5	109.9	100.1	86.2	65.4	47.3	33.4	23.6	16.7
67.5°	155.8	136.3	115.4	96.0	86.2	75.1	55.6	40.3	27.8	19.5	13.9
70°	130.7	115.4	97.3	79.3	72.3	62.6	45.9	33.4	22.3	15.3	11.1
72.5°	104.3	91.8	77.9	64.0	58.4	48.7	37.5	26.4	16.7	11.1	8.3
75°	79.3	69.5	58.4	48.7	43.1	37.5	27.8	19.5	12.5	8.3	5.6
77.5°	54.2	50.1	41.7	33.4	30.6	26.4	18.1	12.5	8.3	5.6	2.8
80°	37.5	33.4	27.8	22.3	19.5	16.7	11.1	8.3	4.2	2.8	1.4
82.5°	23.6	19.5	16.7	13.9	12.5	9.7	7.0	4.2	2.8	1.4	1.4
85°	12.5	11.1	9.7	7.0	7.0	5.6	4.2	2.8	1.4	0.0	0.0
87.5°	7.0	5.6	4.2	2.8	2.8	1.4	1.4	1.4	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7
2.5°	1463.0	1463.0	1461.6	1478.3	1458.9	1478.3	1468.6	1478.3	1464.4	1463.0	1464.4
5°	1474.2	1478.3	1479.7	1495.0	1476.9	1500.6	1492.2	1500.6	1490.8	1493.6	1497.8
7.5°	1496.4	1503.4	1502.0	1521.4	1503.4	1529.8	1524.2	1536.7	1527.0	1529.8	1535.3
10°	1521.4	1529.8	1531.2	1550.6	1534.0	1565.9	1559.0	1572.9	1564.5	1568.7	1575.7
12.5°	1550.6	1560.4	1561.8	1584.0	1565.9	1599.3	1595.1	1609.1	1602.1	1606.3	1614.6
15°	1572.9	1586.8	1589.6	1611.8	1592.4	1627.1	1624.3	1642.4	1631.3	1638.3	1645.2
17.5°	1584.0	1596.5	1602.1	1623.0	1606.3	1641.0	1638.3	1653.6	1645.2	1652.2	1660.5
20°	1577.1	1592.4	1596.5	1617.4	1600.7	1635.5	1631.3	1646.6	1638.3	1643.8	1652.2
22.5°	1552.0	1567.3	1572.9	1592.4	1577.1	1609.1	1607.7	1621.6	1610.4	1617.4	1624.3
25°	1507.5	1524.2	1527.0	1545.1	1528.4	1561.8	1559.0	1574.3	1565.9	1570.1	1579.8
27.5°	1443.6	1463.0	1467.2	1482.5	1470.0	1497.8	1497.8	1510.3	1500.6	1500.6	1510.3
30°	1367.1	1386.5	1389.3	1401.8	1390.7	1415.7	1417.1	1429.7	1414.4	1422.7	1424.1
32.5°	1273.9	1286.4	1294.8	1305.9	1289.2	1321.2	1317.0	1326.7	1318.4	1318.4	1325.3
35°	1161.2	1176.5	1180.7	1194.6	1180.7	1205.7	1205.7	1211.3	1203.0	1203.0	1214.1
37.5°	1038.9	1050.0	1051.4	1065.3	1054.2	1075.0	1073.6	1077.8	1069.5	1075.0	1075.0
40°	895.6	904.0	906.7	913.7	912.3	927.6	926.2	929.0	924.8	926.2	929.0
42.5°	728.7	739.9	745.4	751.0	742.6	763.5	759.3	763.5	762.1	763.5	767.7
45°	536.8	545.2	549.3	550.7	547.9	560.5	570.2	561.8	563.2	560.5	566.0
47.5°	388.0	389.4	386.6	395.0	388.0	393.6	396.4	397.7	389.4	388.0	393.6
50°	265.6	272.6	262.8	267.0	265.6	271.2	268.4	269.8	261.5	265.6	262.8
52.5°	176.6	175.2	172.4	173.8	171.1	171.1	171.1	173.8	168.3	165.5	162.7
55°	107.1	104.3	98.7	97.3	97.3	98.7	96.0	93.2	93.2	91.8	91.8
57.5°	62.6	58.4	55.6	54.2	51.5	50.1	48.7	48.7	45.9	45.9	45.9
60°	34.8	30.6	27.8	25.0	25.0	23.6	22.3	20.9	20.9	20.9	19.5
62.5°	18.1	15.3	12.5	11.1	11.1	9.7	8.3	8.3	8.3	8.3	7.0
65°	12.5	9.7	8.3	7.0	7.0	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	9.7	8.3	7.0	5.6	5.6	5.6	4.2	4.2	4.2	4.2	4.2
70°	8.3	5.6	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	5.6	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
75°	4.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
80°	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P252156

CATALOG NUMBER: LD6B20D010 EU6B10208035 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7	1454.7
2.5°	1476.9	1475.5	1476.9	1479.7	1474.2	1490.8	1482.5	1490.8
5°	1508.9	1510.3	1511.7	1515.9	1508.9	1529.8	1518.7	1531.2
7.5°	1550.6	1552.0	1553.4	1557.6	1553.4	1574.3	1561.8	1572.9
10°	1593.8	1596.5	1596.5	1603.5	1599.3	1618.8	1610.4	1624.3
12.5°	1634.1	1636.9	1639.6	1643.8	1641.0	1661.9	1654.9	1666.1
15°	1666.1	1671.6	1673.0	1678.6	1675.8	1698.1	1689.7	1700.8
17.5°	1681.4	1686.9	1686.9	1693.9	1691.1	1714.7	1703.6	1716.1
20°	1673.0	1677.2	1678.6	1685.5	1682.8	1706.4	1695.3	1710.6
22.5°	1646.6	1648.0	1649.4	1656.3	1654.9	1675.8	1666.1	1675.8
25°	1597.9	1602.1	1600.7	1606.3	1606.3	1623.0	1611.8	1620.2
27.5°	1528.4	1532.6	1532.6	1539.5	1534.0	1550.6	1539.5	1552.0
30°	1443.6	1447.7	1444.9	1450.5	1444.9	1461.6	1453.3	1457.5
32.5°	1342.0	1342.0	1343.4	1344.8	1342.0	1357.3	1349.0	1357.3
35°	1221.0	1223.8	1225.2	1226.6	1223.8	1235.0	1225.2	1230.8
37.5°	1084.8	1091.7	1090.3	1091.7	1087.5	1101.4	1093.1	1095.9
40°	938.7	938.7	937.3	940.1	935.9	947.1	941.5	944.3
42.5°	769.1	773.2	767.7	774.6	763.5	778.8	773.2	769.1
45°	577.1	571.6	570.2	571.6	567.4	568.8	573.0	570.2
47.5°	393.6	393.6	390.8	386.6	392.2	393.6	388.0	388.0
50°	264.2	264.2	261.5	260.1	262.8	261.5	258.7	262.8
52.5°	168.3	162.7	162.7	165.5	162.7	159.9	164.1	161.3
55°	91.8	89.0	89.0	91.8	89.0	89.0	87.6	90.4
57.5°	44.5	45.9	44.5	44.5	44.5	44.5	43.1	44.5
60°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
62.5°	8.3	8.3	7.0	7.0	7.0	7.0	7.0	7.0
65°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	4.2	4.2	4.2	4.2	4.2	5.6	4.2	4.2
70°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	4.2	4.2	5.6	5.6	5.6	5.6	5.6	5.6
75°	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	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



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















(END OF REPORT)