

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: P252289

Luminaire Tested: **LD6B40D010 EU6B30509024 6LBSW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252289  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-7)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B40D010 EU6B30509024 6LBSW1H  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2790.0 lumens  
Efficiency: N/A  
Efficacy: 64.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.16  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

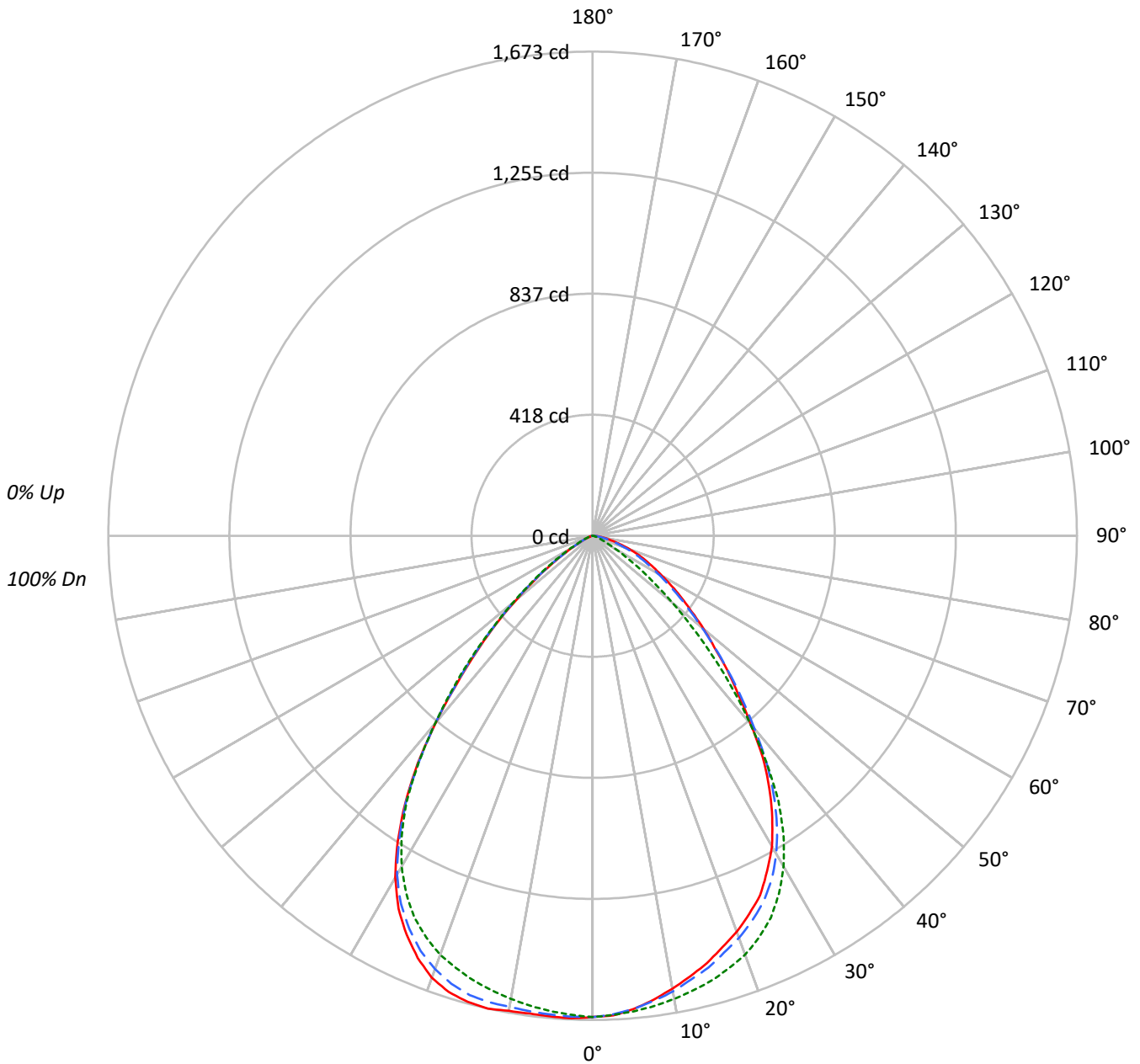
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52																			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47																			
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	42	51	46	41	50	45	41	40																			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	37																			

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

	0°	90°	180°
0°	108495	108495	108495
5°	107462	107993	109172
10°	105247	107645	110434
15°	103231	107439	112593
20°	101094	106953	112813
25°	98605	104817	109446
30°	93353	99410	102732
35°	84781	89098	89902
40°	72357	72016	71667
45°	60784	53928	52258
50°	50758	36488	34651
55°	42722	22385	20337
60°	36169	11796	10217
65°	31322	6206	4955
70°	26057	3834	2690
75°	19233	2521	1512
80°	15103	1503	751
85°	12052	1497	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.7	5.6
10°-20°	448.8	16.1
20°-30°	662.7	23.8
30°-40°	682.9	24.5
40°-50°	471.7	16.9
50°-60°	232.5	8.3
60°-70°	94.2	3.4
70°-80°	33.6	1.2
80°-90°	6.9	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°	1268.2	45.5
0°-40°	1951.1	69.9
0°-60°	2655.3	95.2
0°-90°	2790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2790.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1663	1663	1663	1663	1663	
5°	1641	1641	1649	1661	1667	155
15°	1528	1544	1591	1643	1667	430
25°	1370	1396	1456	1498	1520	626
35°	1064	1091	1119	1125	1129	660
45°	659	663	584	576	566	509
55°	376	362	197	185	179	339
65°	203	183	40	32	32	201
75°	76	64	10	6	6	86
85°	16	12	2	0	0	20
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°	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0
2.5°	1659.0	1653.0	1657.0	1649.0	1659.0	1649.0	1651.0	1653.0	1651.0	1653.0	1655.0
5°	1640.9	1634.9	1640.9	1630.9	1640.9	1634.9	1634.9	1636.9	1636.9	1638.9	1640.9
7.5°	1616.8	1610.8	1616.8	1606.8	1618.8	1612.8	1612.8	1616.8	1614.8	1616.8	1620.8
10°	1588.7	1580.7	1586.7	1580.7	1592.7	1584.7	1588.7	1588.7	1588.7	1594.7	1598.7
12.5°	1558.6	1550.5	1558.6	1548.5	1560.6	1554.6	1556.6	1562.6	1564.6	1568.6	1570.6
15°	1528.4	1518.4	1522.4	1516.4	1528.4	1522.4	1524.4	1532.5	1532.5	1538.5	1544.5
17.5°	1490.3	1482.2	1490.3	1482.2	1492.3	1488.3	1492.3	1498.3	1498.3	1504.3	1510.4
20°	1456.1	1448.1	1454.1	1448.1	1460.2	1454.1	1456.1	1464.2	1466.2	1472.2	1478.2
22.5°	1414.0	1407.9	1412.0	1405.9	1418.0	1414.0	1416.0	1424.0	1426.0	1430.0	1440.1
25°	1369.8	1357.7	1363.7	1359.7	1371.8	1365.8	1369.8	1377.8	1381.8	1387.9	1395.9
27.5°	1305.5	1299.5	1303.5	1303.5	1313.5	1307.5	1309.5	1317.6	1323.6	1329.6	1339.6
30°	1239.2	1229.2	1233.2	1235.2	1243.2	1239.2	1243.2	1251.3	1253.3	1261.3	1269.4
32.5°	1154.9	1150.9	1158.9	1154.9	1158.9	1158.9	1160.9	1166.9	1170.9	1175.0	1185.0
35°	1064.5	1056.5	1064.5	1060.5	1070.5	1064.5	1070.5	1076.5	1076.5	1084.6	1090.6
37.5°	966.1	956.0	960.0	960.0	964.1	962.1	962.1	972.1	974.1	980.1	986.2
40°	849.6	845.6	853.6	851.6	853.6	853.6	855.6	861.6	865.6	867.7	869.7
42.5°	745.1	747.2	749.2	749.2	749.2	749.2	749.2	757.2	755.2	761.2	763.2
45°	658.8	650.7	654.8	652.8	658.8	652.8	658.8	664.8	660.8	666.8	662.8
47.5°	570.4	570.4	570.4	568.4	572.4	570.4	574.4	576.4	576.4	576.4	574.4
50°	500.1	494.1	496.1	496.1	498.1	496.1	500.1	502.1	502.1	498.1	490.1
52.5°	431.8	429.8	429.8	433.8	433.8	431.8	431.8	431.8	431.8	425.8	421.8
55°	375.6	371.6	373.6	373.6	373.6	373.6	375.6	373.6	373.6	367.5	361.5
57.5°	325.4	321.4	321.4	321.4	323.4	321.4	321.4	321.4	319.3	313.3	305.3
60°	277.2	275.2	277.2	277.2	279.2	277.2	277.2	277.2	273.2	267.1	259.1
62.5°	237.0	237.0	237.0	239.0	239.0	237.0	237.0	235.0	233.0	224.9	216.9
65°	202.9	200.8	202.9	202.9	204.9	204.9	202.9	200.8	198.8	190.8	182.8
67.5°	168.7	166.7	168.7	168.7	170.7	168.7	168.7	168.7	162.7	158.7	150.6
70°	136.6	134.6	134.6	134.6	136.6	132.6	134.6	134.6	130.6	124.5	116.5
72.5°	104.4	104.4	104.4	104.4	104.4	104.4	102.4	102.4	98.4	92.4	88.4
75°	76.3	76.3	78.3	78.3	76.3	76.3	76.3	74.3	72.3	68.3	64.3
77.5°	56.2	56.2	56.2	56.2	54.2	54.2	54.2	52.2	50.2	48.2	44.2
80°	40.2	40.2	40.2	38.2	40.2	38.2	38.2	38.2	34.1	32.1	30.1
82.5°	28.1	26.1	26.1	26.1	26.1	26.1	26.1	24.1	24.1	22.1	20.1
85°	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	14.1	12.1	12.1
87.5°	8.0	10.0	10.0	10.0	10.0	10.0	10.0	8.0	8.0	8.0	6.0
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°	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0
2.5°	1655.0	1655.0	1659.0	1653.0	1663.0	1657.0	1655.0	1665.0	1659.0	1657.0	1661.0
5°	1640.9	1642.9	1644.9	1640.9	1651.0	1644.9	1644.9	1655.0	1651.0	1649.0	1655.0
7.5°	1622.8	1624.9	1628.9	1626.9	1634.9	1630.9	1632.9	1642.9	1638.9	1638.9	1644.9
10°	1600.7	1604.8	1608.8	1608.8	1618.8	1614.8	1614.8	1626.9	1622.8	1624.9	1632.9
12.5°	1574.6	1580.7	1586.7	1588.7	1598.7	1592.7	1594.7	1608.8	1606.8	1608.8	1616.8
15°	1546.5	1554.6	1560.6	1560.6	1572.6	1566.6	1572.6	1586.7	1582.7	1590.7	1600.7
17.5°	1514.4	1522.4	1530.5	1532.5	1544.5	1540.5	1548.5	1562.6	1562.6	1566.6	1578.7
20°	1484.3	1494.3	1498.3	1504.3	1516.4	1514.4	1518.4	1534.5	1534.5	1540.5	1552.5
22.5°	1444.1	1454.1	1462.2	1468.2	1478.2	1478.2	1484.3	1498.3	1498.3	1502.3	1514.4
25°	1399.9	1412.0	1418.0	1424.0	1434.0	1432.0	1438.1	1450.1	1452.1	1456.1	1468.2
27.5°	1343.7	1353.7	1361.7	1365.8	1379.8	1371.8	1377.8	1391.9	1389.9	1393.9	1403.9
30°	1273.4	1283.4	1291.4	1291.4	1303.5	1303.5	1309.5	1315.5	1315.5	1319.6	1327.6
32.5°	1191.0	1203.1	1203.1	1209.1	1217.1	1209.1	1217.1	1225.2	1221.1	1227.2	1233.2
35°	1096.6	1102.6	1104.7	1104.7	1110.7	1108.7	1106.7	1112.7	1108.7	1118.7	1124.7
37.5°	982.1	990.2	986.2	990.2	988.2	982.1	982.1	992.2	984.1	986.2	992.2
40°	871.7	871.7	869.7	859.6	861.6	855.6	853.6	855.6	847.6	845.6	853.6
42.5°	757.2	755.2	749.2	735.1	737.1	727.1	719.0	719.0	715.0	713.0	715.0
45°	654.8	648.7	638.7	622.6	618.6	610.6	594.5	590.5	584.5	584.5	586.5
47.5°	560.4	552.3	536.3	518.2	508.1	498.1	482.0	476.0	466.0	461.9	466.0
50°	482.0	468.0	447.9	421.8	411.7	399.7	383.6	373.6	363.5	359.5	357.5
52.5°	409.7	389.6	369.6	337.4	329.4	317.3	295.2	285.2	275.2	267.1	267.1
55°	347.5	329.4	301.3	271.1	259.1	247.0	224.9	210.9	200.8	196.8	192.8
57.5°	291.2	271.1	245.0	212.9	200.8	188.8	166.7	152.6	142.6	136.6	132.6
60°	245.0	222.9	196.8	168.7	154.7	142.6	120.5	106.4	96.4	90.4	86.4
62.5°	200.8	182.8	156.7	130.6	118.5	106.4	88.4	74.3	64.3	60.3	54.2
65°	168.7	150.6	126.5	104.4	94.4	82.3	66.3	54.2	46.2	40.2	36.2
67.5°	136.6	122.5	102.4	82.3	72.3	64.3	50.2	40.2	32.1	28.1	26.1
70°	108.5	94.4	78.3	62.3	56.2	48.2	38.2	28.1	24.1	20.1	18.1
72.5°	80.3	70.3	58.2	46.2	40.2	36.2	26.1	22.1	16.1	14.1	12.1
75°	58.2	50.2	42.2	32.1	28.1	26.1	20.1	14.1	12.1	10.0	8.0
77.5°	40.2	36.2	28.1	22.1	20.1	18.1	14.1	10.0	8.0	6.0	6.0
80°	26.1	22.1	18.1	14.1	14.1	12.1	8.0	6.0	6.0	4.0	4.0
82.5°	16.1	14.1	12.1	10.0	8.0	8.0	6.0	4.0	4.0	2.0	2.0
85°	10.0	8.0	6.0	6.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0
87.5°	4.0	4.0	4.0	2.0	2.0	2.0	2.0	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0
2.5°	1661.0	1661.0	1665.0	1659.0	1663.0	1663.0	1667.0	1659.0	1663.0	1665.0	1669.0
5°	1653.0	1655.0	1659.0	1657.0	1659.0	1659.0	1663.0	1653.0	1661.0	1661.0	1667.0
7.5°	1644.9	1644.9	1649.0	1646.9	1651.0	1653.0	1657.0	1649.0	1657.0	1657.0	1663.0
10°	1634.9	1634.9	1640.9	1638.9	1644.9	1646.9	1653.0	1644.9	1653.0	1655.0	1661.0
12.5°	1620.8	1622.8	1628.9	1628.9	1634.9	1638.9	1644.9	1640.9	1651.0	1653.0	1661.0
15°	1604.8	1608.8	1616.8	1614.8	1620.8	1626.9	1634.9	1628.9	1642.9	1646.9	1655.0
17.5°	1584.7	1588.7	1594.7	1594.7	1600.7	1604.8	1614.8	1610.8	1622.8	1624.9	1634.9
20°	1554.6	1560.6	1568.6	1566.6	1572.6	1576.6	1584.7	1580.7	1592.7	1596.7	1606.8
22.5°	1518.4	1522.4	1528.4	1528.4	1534.5	1538.5	1546.5	1540.5	1552.5	1554.6	1562.6
25°	1470.2	1474.2	1478.2	1480.2	1486.3	1488.3	1492.3	1488.3	1498.3	1500.3	1510.4
27.5°	1407.9	1409.9	1416.0	1416.0	1420.0	1422.0	1428.0	1420.0	1434.0	1434.0	1440.1
30°	1333.6	1331.6	1339.6	1335.6	1339.6	1339.6	1345.7	1341.7	1351.7	1347.7	1353.7
32.5°	1235.2	1239.2	1239.2	1235.2	1243.2	1241.2	1241.2	1237.2	1243.2	1245.3	1249.3
35°	1120.7	1126.8	1126.8	1128.8	1130.8	1124.7	1126.8	1114.7	1124.7	1126.8	1128.8
37.5°	996.2	990.2	994.2	988.2	998.2	986.2	986.2	978.1	986.2	986.2	988.2
40°	853.6	851.6	855.6	851.6	849.6	847.6	843.6	837.5	845.6	841.5	847.6
42.5°	719.0	717.0	717.0	713.0	711.0	711.0	707.0	703.0	701.0	701.0	711.0
45°	580.4	584.5	580.4	578.4	582.5	578.4	580.4	572.4	576.4	572.4	576.4
47.5°	464.0	466.0	461.9	457.9	464.0	457.9	457.9	451.9	459.9	459.9	455.9
50°	359.5	357.5	353.5	357.5	355.5	355.5	355.5	349.5	353.5	347.5	351.5
52.5°	265.1	263.1	263.1	261.1	263.1	261.1	261.1	259.1	259.1	257.1	259.1
55°	192.8	190.8	186.8	186.8	186.8	188.8	186.8	184.8	184.8	182.8	184.8
57.5°	130.6	126.5	126.5	126.5	126.5	124.5	124.5	122.5	124.5	122.5	124.5
60°	84.4	84.4	80.3	80.3	80.3	80.3	80.3	78.3	80.3	80.3	80.3
62.5°	52.2	52.2	50.2	48.2	50.2	48.2	48.2	48.2	50.2	48.2	50.2
65°	34.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
67.5°	24.1	22.1	22.1	22.1	22.1	22.1	22.1	20.1	22.1	22.1	22.1
70°	16.1	16.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
72.5°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
75°	8.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	2.0	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	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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: P252289

CATALOG NUMBER: LD6B40D010 EU6B30509024 6LBSW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0	1663.0
2.5°	1663.0	1665.0	1661.0	1663.0	1659.0	1663.0	1665.0	1669.0
5°	1659.0	1661.0	1657.0	1661.0	1657.0	1661.0	1663.0	1667.0
7.5°	1655.0	1659.0	1655.0	1659.0	1655.0	1659.0	1661.0	1665.0
10°	1655.0	1661.0	1657.0	1663.0	1657.0	1661.0	1665.0	1667.0
12.5°	1655.0	1661.0	1659.0	1663.0	1661.0	1665.0	1669.0	1673.1
15°	1651.0	1657.0	1653.0	1659.0	1657.0	1659.0	1667.0	1667.0
17.5°	1628.9	1634.9	1634.9	1638.9	1638.9	1644.9	1649.0	1653.0
20°	1600.7	1606.8	1604.8	1610.8	1610.8	1616.8	1620.8	1624.9
22.5°	1558.6	1566.6	1564.6	1570.6	1568.6	1572.6	1580.7	1578.7
25°	1504.3	1514.4	1512.4	1516.4	1514.4	1514.4	1518.4	1520.4
27.5°	1438.1	1444.1	1442.1	1446.1	1442.1	1446.1	1450.1	1452.1
30°	1351.7	1355.7	1353.7	1355.7	1353.7	1357.7	1359.7	1363.7
32.5°	1247.3	1253.3	1247.3	1251.3	1249.3	1249.3	1257.3	1253.3
35°	1122.7	1124.7	1126.8	1126.8	1122.7	1124.7	1128.8	1128.8
37.5°	984.1	994.2	982.1	988.2	986.2	986.2	986.2	992.2
40°	839.5	841.5	837.5	837.5	837.5	835.5	843.6	841.5
42.5°	703.0	705.0	703.0	696.9	698.9	698.9	705.0	696.9
45°	570.4	574.4	572.4	572.4	568.4	568.4	570.4	566.4
47.5°	451.9	455.9	449.9	451.9	447.9	451.9	449.9	453.9
50°	343.4	347.5	345.5	347.5	347.5	343.4	349.5	341.4
52.5°	257.1	259.1	257.1	255.1	253.1	253.1	257.1	255.1
55°	182.8	180.8	180.8	180.8	182.8	182.8	180.8	178.8
57.5°	122.5	122.5	120.5	120.5	122.5	118.5	120.5	118.5
60°	78.3	78.3	78.3	78.3	76.3	78.3	78.3	78.3
62.5°	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2
65°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
67.5°	20.1	22.1	22.1	22.1	20.1	20.1	20.1	20.1
70°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
72.5°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
75°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	2.0	2.0	2.0	2.0	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)