

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: P252708

Luminaire Tested: **LD6B40D010 EU6B30509035 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252708  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B40D010 EU6B30509035 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3379.0 lumens  
Efficiency: N/A  
Efficacy: 78.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

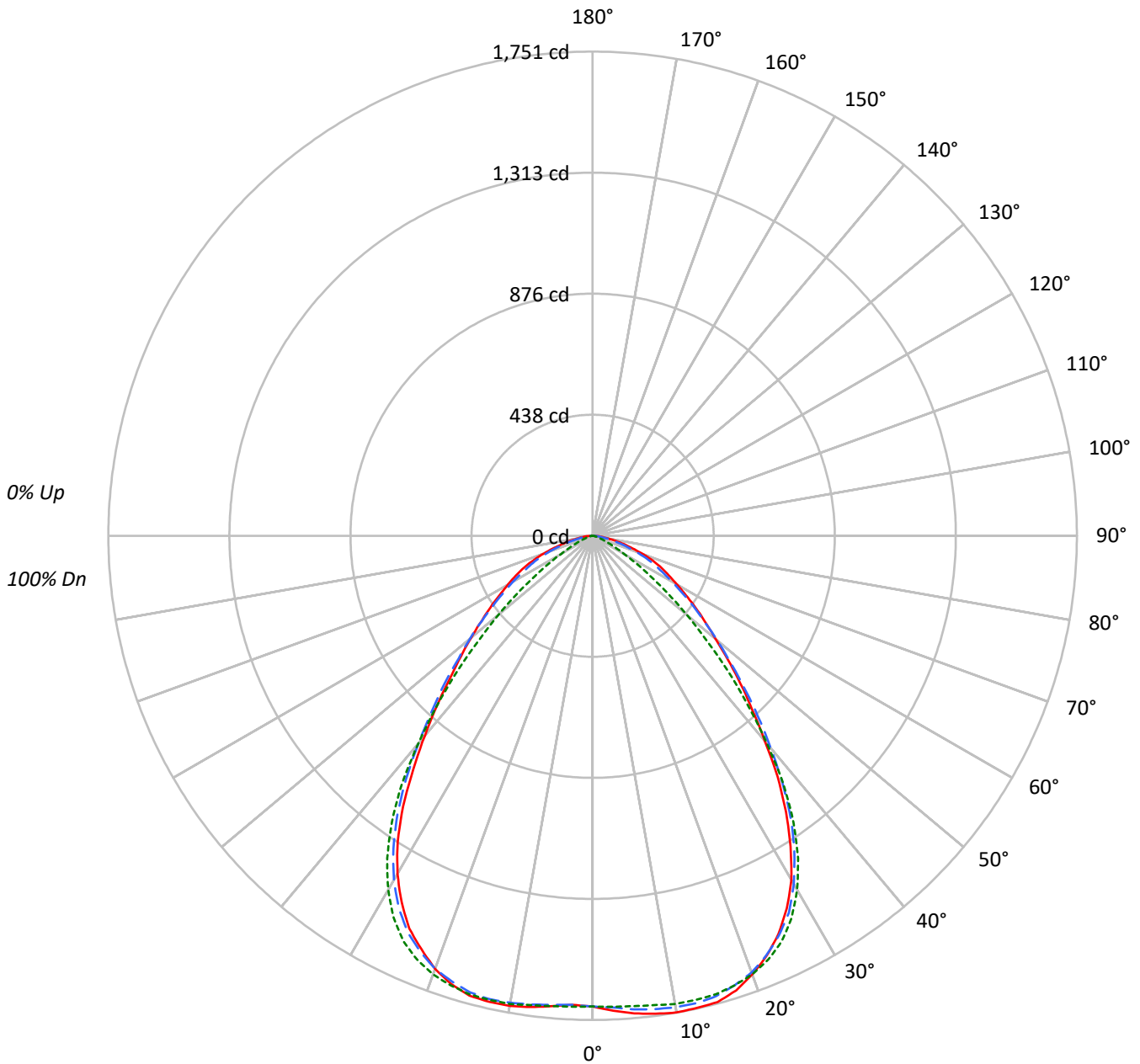
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78			
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68			
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61			
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54			
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44			
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33			

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

	0°	90°	180°
0°	111066	111066	111066
5°	113540	111804	111804
10°	115972	113899	114376
15°	117915	115963	116287
20°	117194	117194	115687
25°	114399	116479	112844
30°	108292	111380	106303
35°	97038	100877	95119
40°	82440	83462	80388
45°	69761	63764	67316
50°	58898	44973	58168
55°	51765	29027	51219
60°	45877	17276	46190
65°	42375	10405	42375
70°	36739	5971	35823
75°	29139	3630	27324
80°	21716	2705	20814
85°	19837	1797	18040



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.9	4.9
10°-20°	485.1	14.4
20°-30°	729.5	21.6
30°-40°	767.0	22.7
40°-50°	573.0	17.0
50°-60°	356.7	10.6
60°-70°	202.9	6.0
70°-80°	83.6	2.5
80°-90°	17.3	0.5
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°	1378.5	40.8
0°-40°	2145.6	63.5
0°-60°	3075.3	91.0
0°-90°	3379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3379.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1702	1702	1702	1702	1702	
5°	1734	1719	1707	1702	1707	166
15°	1746	1724	1717	1710	1722	491
25°	1589	1594	1618	1582	1568	727
35°	1218	1250	1267	1230	1194	756
45°	756	773	691	758	730	586
55°	455	446	255	438	450	409
65°	274	246	67	246	274	270
75°	116	92	14	89	108	126
85°	26	17	2	14	24	29
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°	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4
2.5°	1719.3	1716.9	1719.3	1714.5	1712.0	1712.0	1714.5	1709.6	1707.2	1709.6	1707.2
5°	1733.7	1728.9	1731.3	1728.9	1724.1	1724.1	1726.5	1719.3	1719.3	1721.7	1719.3
7.5°	1743.3	1743.3	1743.3	1738.5	1736.1	1733.7	1738.5	1731.3	1728.9	1728.9	1726.5
10°	1750.6	1748.2	1750.6	1745.8	1740.9	1738.5	1743.3	1738.5	1733.7	1738.5	1731.3
12.5°	1748.2	1748.2	1748.2	1745.8	1740.9	1738.5	1743.3	1736.1	1733.7	1736.1	1731.3
15°	1745.8	1738.5	1740.9	1738.5	1731.3	1731.3	1733.7	1726.5	1721.7	1728.9	1724.1
17.5°	1724.1	1719.3	1721.7	1716.9	1712.0	1709.6	1712.0	1709.6	1704.8	1709.6	1704.8
20°	1688.0	1688.0	1690.4	1685.6	1680.7	1678.3	1683.1	1678.3	1673.5	1680.7	1680.7
22.5°	1644.6	1644.6	1644.6	1642.2	1639.8	1639.8	1639.8	1637.4	1635.0	1639.8	1642.2
25°	1589.2	1586.8	1589.2	1591.6	1589.2	1586.8	1589.2	1589.2	1584.4	1594.1	1594.1
27.5°	1519.4	1519.4	1524.2	1521.8	1521.8	1519.4	1524.2	1524.2	1521.8	1529.0	1536.3
30°	1437.5	1432.7	1437.5	1437.5	1439.9	1439.9	1442.4	1442.4	1442.4	1449.6	1454.4
32.5°	1331.6	1334.0	1341.2	1338.8	1336.4	1343.6	1343.6	1348.4	1350.9	1355.7	1358.1
35°	1218.4	1220.8	1220.8	1223.2	1228.0	1223.2	1235.3	1232.9	1235.3	1244.9	1249.7
37.5°	1098.0	1090.8	1102.8	1098.0	1100.4	1100.4	1105.2	1107.7	1114.9	1126.9	1126.9
40°	968.0	970.4	975.2	977.6	980.0	980.0	980.0	987.3	989.7	1004.1	1001.7
42.5°	854.8	854.8	859.6	862.0	862.0	862.0	862.0	869.3	874.1	878.9	883.7
45°	756.1	748.9	753.7	753.7	758.5	756.1	760.9	765.7	768.1	775.4	772.9
47.5°	662.2	659.8	662.2	664.6	662.2	664.6	667.0	669.4	671.8	671.8	671.8
50°	580.3	580.3	582.7	585.1	585.1	585.1	585.1	587.5	587.5	592.4	587.5
52.5°	512.9	515.3	515.3	512.9	515.3	515.3	517.7	517.7	515.3	515.3	508.1
55°	455.1	452.7	455.1	452.7	455.1	455.1	452.7	452.7	450.3	447.9	445.5
57.5°	399.7	399.7	399.7	399.7	397.3	399.7	397.3	394.9	394.9	390.1	382.9
60°	351.6	351.6	351.6	351.6	351.6	349.2	351.6	349.2	344.3	339.5	329.9
62.5°	310.6	308.2	310.6	308.2	308.2	305.8	305.8	303.4	298.6	293.8	284.1
65°	274.5	276.9	274.5	274.5	272.1	269.7	269.7	267.3	260.1	255.2	245.6
67.5°	236.0	233.6	233.6	233.6	231.2	231.2	231.2	226.3	221.5	214.3	204.7
70°	192.6	192.6	192.6	190.2	190.2	187.8	187.8	185.4	180.6	175.8	163.7
72.5°	151.7	151.7	151.7	146.9	149.3	146.9	146.9	142.1	139.7	132.4	125.2
75°	115.6	115.6	113.2	113.2	110.8	108.4	108.4	105.9	103.5	98.7	91.5
77.5°	84.3	84.3	84.3	81.9	79.5	77.1	77.1	74.6	72.2	69.8	65.0
80°	57.8	57.8	57.8	57.8	55.4	53.0	53.0	50.6	50.6	48.2	43.3
82.5°	38.5	38.5	38.5	38.5	36.1	36.1	36.1	33.7	31.3	31.3	26.5
85°	26.5	26.5	24.1	24.1	24.1	24.1	21.7	21.7	19.3	16.9	16.9
87.5°	14.4	14.4	14.4	14.4	12.0	12.0	12.0	12.0	9.6	9.6	7.2
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°	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4
2.5°	1714.5	1714.5	1712.0	1704.8	1707.2	1704.8	1707.2	1704.8	1697.6	1704.8	1697.6
5°	1724.1	1726.5	1721.7	1712.0	1714.5	1712.0	1712.0	1709.6	1702.4	1707.2	1702.4
7.5°	1733.7	1731.3	1728.9	1719.3	1721.7	1719.3	1719.3	1714.5	1707.2	1712.0	1704.8
10°	1738.5	1738.5	1733.7	1724.1	1724.1	1721.7	1724.1	1721.7	1712.0	1719.3	1714.5
12.5°	1738.5	1736.1	1736.1	1724.1	1726.5	1724.1	1726.5	1721.7	1714.5	1719.3	1716.9
15°	1731.3	1731.3	1728.9	1716.9	1719.3	1719.3	1721.7	1716.9	1709.6	1716.9	1712.0
17.5°	1716.9	1716.9	1714.5	1704.8	1709.6	1709.6	1712.0	1707.2	1700.0	1704.8	1704.8
20°	1688.0	1690.4	1690.4	1683.1	1688.0	1688.0	1690.4	1688.0	1685.6	1688.0	1683.1
22.5°	1654.3	1659.1	1659.1	1651.8	1656.7	1656.7	1663.9	1661.5	1656.7	1659.1	1656.7
25°	1603.7	1608.5	1613.3	1608.5	1613.3	1613.3	1620.5	1618.1	1613.3	1618.1	1610.9
27.5°	1545.9	1548.3	1553.1	1548.3	1555.5	1553.1	1560.3	1557.9	1550.7	1557.9	1555.5
30°	1464.0	1473.7	1480.9	1473.7	1480.9	1480.9	1485.7	1483.3	1480.9	1478.5	1478.5
32.5°	1372.5	1382.2	1382.2	1379.7	1384.6	1384.6	1387.0	1382.2	1379.7	1382.2	1384.6
35°	1259.4	1264.2	1269.0	1266.6	1269.0	1271.4	1269.0	1271.4	1264.2	1266.6	1266.6
37.5°	1136.5	1141.4	1141.4	1134.1	1139.0	1139.0	1134.1	1134.1	1129.3	1134.1	1124.5
40°	1006.5	1001.7	1004.1	999.3	994.5	994.5	992.1	982.4	977.6	980.0	982.4
42.5°	878.9	878.9	871.7	859.6	847.6	847.6	840.4	835.6	825.9	830.7	828.3
45°	770.5	758.5	748.9	729.6	722.4	717.6	705.5	693.5	688.7	691.1	688.7
47.5°	667.0	657.4	633.3	606.8	599.6	592.4	577.9	563.5	558.6	553.8	553.8
50°	580.3	563.5	537.0	508.1	496.0	484.0	464.7	450.3	440.7	443.1	443.1
52.5°	500.9	481.6	450.3	414.2	399.7	385.3	368.4	351.6	344.3	341.9	341.9
55°	431.0	409.3	378.0	337.1	325.1	308.2	286.5	267.3	257.6	255.2	260.1
57.5°	368.4	349.2	313.0	272.1	257.6	240.8	219.1	202.3	190.2	187.8	190.2
60°	317.8	291.4	260.1	221.5	202.3	187.8	163.7	149.3	137.3	132.4	134.8
62.5°	267.3	243.2	211.9	173.4	158.9	144.5	122.8	105.9	96.3	93.9	96.3
65°	228.8	204.7	175.8	142.1	127.6	113.2	93.9	77.1	69.8	67.4	69.8
67.5°	190.2	168.6	144.5	113.2	101.1	89.1	69.8	57.8	48.2	45.8	48.2
70°	154.1	134.8	110.8	89.1	77.1	67.4	53.0	40.9	33.7	31.3	33.7
72.5°	115.6	101.1	84.3	65.0	57.8	50.6	38.5	28.9	24.1	21.7	24.1
75°	84.3	72.2	60.2	45.8	40.9	36.1	26.5	19.3	16.9	14.4	16.9
77.5°	57.8	50.6	40.9	31.3	26.5	24.1	16.9	14.4	12.0	9.6	9.6
80°	38.5	33.7	26.5	21.7	19.3	16.9	12.0	9.6	7.2	7.2	7.2
82.5°	24.1	19.3	16.9	12.0	9.6	9.6	7.2	4.8	4.8	4.8	4.8
85°	14.4	12.0	9.6	7.2	4.8	4.8	2.4	2.4	2.4	2.4	2.4
87.5°	7.2	4.8	4.8	2.4	2.4	2.4	2.4	2.4	0.0	0.0	2.4
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°	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4
2.5°	1702.4	1697.6	1697.6	1700.0	1702.4	1704.8	1700.0	1697.6	1697.6	1704.8	1700.0
5°	1702.4	1700.0	1700.0	1700.0	1704.8	1707.2	1702.4	1700.0	1702.4	1709.6	1707.2
7.5°	1709.6	1704.8	1707.2	1707.2	1709.6	1714.5	1709.6	1707.2	1709.6	1716.9	1712.0
10°	1714.5	1709.6	1712.0	1709.6	1716.9	1719.3	1714.5	1712.0	1714.5	1724.1	1721.7
12.5°	1716.9	1714.5	1714.5	1712.0	1719.3	1721.7	1716.9	1714.5	1716.9	1724.1	1721.7
15°	1712.0	1709.6	1709.6	1709.6	1714.5	1719.3	1712.0	1709.6	1709.6	1716.9	1714.5
17.5°	1702.4	1697.6	1697.6	1697.6	1700.0	1702.4	1695.2	1692.8	1690.4	1697.6	1695.2
20°	1685.6	1680.7	1675.9	1675.9	1678.3	1678.3	1673.5	1666.3	1666.3	1668.7	1663.9
22.5°	1654.3	1651.8	1647.0	1644.6	1649.4	1647.0	1637.4	1630.2	1627.8	1630.2	1625.4
25°	1610.9	1606.1	1603.7	1601.3	1603.7	1601.3	1591.6	1582.0	1582.0	1582.0	1574.8
27.5°	1550.7	1545.9	1543.5	1543.5	1545.9	1541.1	1531.4	1521.8	1517.0	1517.0	1509.8
30°	1473.7	1473.7	1471.3	1468.8	1466.4	1466.4	1452.0	1442.4	1437.5	1439.9	1435.1
32.5°	1379.7	1377.3	1374.9	1367.7	1370.1	1367.7	1355.7	1348.4	1341.2	1336.4	1334.0
35°	1259.4	1259.4	1256.9	1256.9	1256.9	1254.5	1242.5	1235.3	1230.5	1228.0	1220.8
37.5°	1126.9	1124.5	1122.1	1122.1	1122.1	1122.1	1114.9	1107.7	1107.7	1105.2	1100.4
40°	977.6	980.0	982.4	980.0	987.3	994.5	984.8	980.0	977.6	984.8	975.2
42.5°	833.1	830.7	842.8	845.2	845.2	857.2	859.6	862.0	859.6	864.4	864.4
45°	693.5	691.1	703.1	707.9	720.0	734.4	741.6	753.7	758.5	763.3	758.5
47.5°	561.0	570.7	580.3	592.4	602.0	626.1	640.5	652.6	657.4	664.6	664.6
50°	450.3	459.9	476.8	486.4	498.4	527.3	551.4	568.3	577.9	585.1	582.7
52.5°	346.7	363.6	385.3	394.9	411.8	445.5	472.0	491.2	503.3	510.5	512.9
55°	267.3	281.7	303.4	317.8	334.7	370.8	404.5	426.2	438.2	447.9	452.7
57.5°	197.5	214.3	238.4	250.4	269.7	310.6	339.5	366.0	380.5	392.5	394.9
60°	144.5	161.3	183.0	197.5	216.7	257.6	291.4	315.4	332.3	341.9	346.7
62.5°	103.5	120.4	142.1	156.5	173.4	209.5	243.2	267.3	284.1	296.2	303.4
65°	74.6	91.5	113.2	125.2	139.7	173.4	204.7	228.8	245.6	260.1	264.9
67.5°	55.4	67.4	86.7	98.7	113.2	139.7	166.1	187.8	204.7	216.7	221.5
70°	40.9	50.6	67.4	74.6	84.3	108.4	130.0	149.3	163.7	173.4	178.2
72.5°	28.9	36.1	48.2	55.4	62.6	81.9	98.7	113.2	122.8	132.4	137.3
75°	19.3	24.1	33.7	38.5	43.3	57.8	69.8	81.9	89.1	96.3	98.7
77.5°	12.0	16.9	24.1	26.5	31.3	38.5	48.2	55.4	60.2	65.0	69.8
80°	7.2	9.6	14.4	16.9	19.3	26.5	31.3	36.1	40.9	45.8	48.2
82.5°	4.8	7.2	9.6	9.6	12.0	14.4	19.3	24.1	26.5	28.9	31.3
85°	2.4	2.4	4.8	4.8	7.2	7.2	9.6	12.0	14.4	16.9	19.3
87.5°	2.4	2.4	2.4	2.4	4.8	4.8	7.2	7.2	7.2	9.6	9.6
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: P252708

CATALOG NUMBER: LD6B40D010 EU6B30509035 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4	1702.4
2.5°	1695.2	1702.4	1695.2	1700.0	1697.6	1697.6	1695.2	1697.6
5°	1702.4	1712.0	1702.4	1709.6	1704.8	1704.8	1704.8	1707.2
7.5°	1709.6	1719.3	1712.0	1719.3	1716.9	1714.5	1714.5	1719.3
10°	1716.9	1724.1	1719.3	1726.5	1724.1	1721.7	1721.7	1726.5
12.5°	1716.9	1726.5	1721.7	1728.9	1726.5	1724.1	1724.1	1726.5
15°	1709.6	1721.7	1714.5	1721.7	1719.3	1716.9	1716.9	1721.7
17.5°	1688.0	1697.6	1692.8	1697.6	1697.6	1695.2	1697.6	1700.0
20°	1659.1	1666.3	1661.5	1666.3	1666.3	1661.5	1663.9	1666.3
22.5°	1618.1	1625.4	1620.5	1625.4	1623.0	1620.5	1620.5	1618.1
25°	1567.6	1577.2	1570.0	1574.8	1570.0	1565.2	1565.2	1567.6
27.5°	1505.0	1512.2	1502.6	1507.4	1502.6	1497.7	1497.7	1495.3
30°	1423.1	1425.5	1418.3	1423.1	1418.3	1415.9	1411.1	1411.1
32.5°	1324.4	1326.8	1319.6	1319.6	1314.7	1314.7	1305.1	1312.3
35°	1208.8	1211.2	1208.8	1206.4	1199.2	1196.7	1194.3	1194.3
37.5°	1088.4	1088.4	1081.2	1078.8	1073.9	1069.1	1071.5	1064.3
40°	965.6	963.2	956.0	958.4	956.0	948.7	946.3	943.9
42.5°	850.0	850.0	842.8	845.2	840.4	838.0	830.7	833.1
45°	748.9	748.9	741.6	741.6	739.2	732.0	734.4	729.6
47.5°	657.4	657.4	655.0	655.0	647.7	645.3	645.3	645.3
50°	577.9	577.9	577.9	577.9	575.5	573.1	570.7	573.1
52.5°	510.5	515.3	512.9	512.9	510.5	508.1	505.7	505.7
55°	450.3	452.7	452.7	455.1	452.7	450.3	452.7	450.3
57.5°	397.3	402.1	402.1	402.1	402.1	402.1	399.7	397.3
60°	351.6	354.0	354.0	356.4	356.4	356.4	354.0	354.0
62.5°	305.8	310.6	313.0	313.0	315.4	313.0	313.0	313.0
65°	269.7	274.5	276.9	274.5	276.9	276.9	274.5	274.5
67.5°	226.3	231.2	231.2	231.2	231.2	233.6	231.2	231.2
70°	183.0	187.8	185.4	187.8	187.8	187.8	187.8	187.8
72.5°	139.7	142.1	144.5	144.5	146.9	144.5	144.5	144.5
75°	101.1	105.9	105.9	105.9	105.9	108.4	108.4	108.4
77.5°	72.2	74.6	74.6	77.1	77.1	77.1	77.1	79.5
80°	50.6	50.6	53.0	53.0	55.4	55.4	55.4	55.4
82.5°	33.7	36.1	36.1	36.1	36.1	36.1	36.1	36.1
85°	19.3	21.7	21.7	21.7	21.7	24.1	24.1	24.1
87.5°	12.0	12.0	12.0	12.0	12.0	12.0	9.6	9.6
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)