

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: P252709

Luminaire Tested: **LD6B40D010 EU6B30509040 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252709
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 EU6B30509040 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3384.0 lumens
Efficiency: N/A
Efficacy: 78.7 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

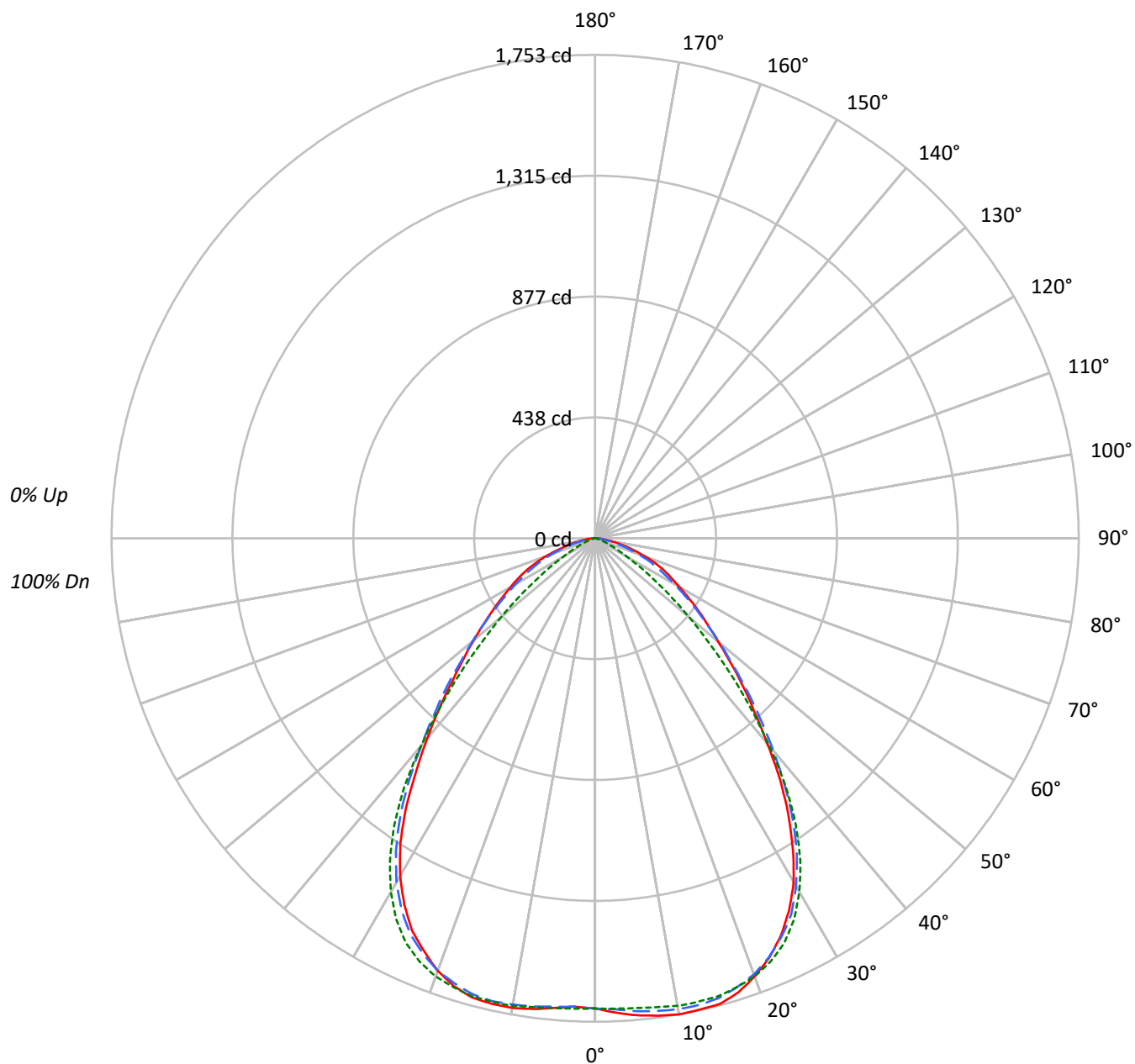
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	101	109	105	102	99		101	98	96			97	95	93			94
2	103	96	91	86	101	95	89	85		91	87	83			88	84	81			85
3	95	87	80	75	93	85	79	74		82	77	73			80	75	71			77
4	89	78	71	65	87	77	70	65		75	69	64			73	67	63			71
5	82	71	64	58	80	70	63	58		68	62	57			66	61	56			65
6	77	65	57	52	75	64	57	51		63	56	51			61	55	51			59
7	72	60	52	47	70	59	52	46		58	51	46			56	50	46			55
8	67	55	47	42	66	54	47	42		53	47	42			52	46	42			51
9	63	51	43	38	62	50	43	38		49	43	38			48	42	38			47
10	59	47	40	35	58	47	40	35		46	39	35			45	39	35			44

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	111229	111229	111229
5°	113710	111975	111975
10°	116144	114064	114541
15°	118084	116132	116456
20°	117367	117367	115861
25°	114571	116652	113009
30°	108457	111546	106454
35°	97182	101021	95262
40°	82560	83590	80507
45°	69862	63856	67417
50°	58990	45034	58249
55°	51844	29073	51298
60°	45942	17302	46256
65°	42437	10420	42437
70°	36796	5971	35880
75°	29190	3655	27350
80°	21753	2705	20852
85°	19837	1797	18040



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	4.9
10°-20°	485.8	14.4
20°-30°	730.6	21.6
30°-40°	768.2	22.7
40°-50°	573.9	17.0
50°-60°	357.3	10.6
60°-70°	203.2	6.0
70°-80°	83.7	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°	1380.6	40.8
0°-40°	2148.7	63.5
0°-60°	3079.9	91.0
0°-90°	3384.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3384.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1705	1705	1705	1705	1705	
5°	1736	1722	1710	1705	1710	166
15°	1748	1727	1719	1712	1724	492
25°	1592	1596	1620	1584	1570	729
35°	1220	1252	1268	1232	1196	757
45°	757	774	692	760	731	587
55°	456	446	256	439	451	410
65°	275	246	68	246	275	271
75°	116	92	14	89	108	126
85°	26	17	2	14	24	30
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°	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1721.8	1719.4	1721.8	1717.0	1714.6	1714.6	1717.0	1712.2	1709.8	1712.2	1709.8
5°	1736.3	1731.5	1733.9	1731.5	1726.6	1726.6	1729.0	1721.8	1721.8	1724.2	1721.8
7.5°	1745.9	1745.9	1745.9	1741.1	1738.7	1736.3	1741.1	1733.9	1731.5	1731.5	1729.0
10°	1753.2	1750.8	1753.2	1748.3	1743.5	1741.1	1745.9	1741.1	1736.3	1741.1	1733.9
12.5°	1750.8	1750.8	1750.8	1748.3	1743.5	1741.1	1745.9	1738.7	1736.3	1738.7	1733.9
15°	1748.3	1741.1	1743.5	1741.1	1733.9	1733.9	1736.3	1729.0	1724.2	1731.5	1726.6
17.5°	1726.6	1721.8	1724.2	1719.4	1714.6	1712.2	1714.6	1712.2	1707.3	1712.2	1707.3
20°	1690.5	1690.5	1692.9	1688.1	1683.2	1680.8	1685.6	1680.8	1676.0	1683.2	1683.2
22.5°	1647.1	1647.1	1647.1	1644.6	1642.2	1642.2	1642.2	1639.8	1637.4	1642.2	1644.6
25°	1591.6	1589.2	1591.6	1594.0	1591.6	1589.2	1591.6	1591.6	1586.8	1596.4	1596.4
27.5°	1521.7	1521.7	1526.5	1524.1	1524.1	1521.7	1526.5	1526.5	1524.1	1531.3	1538.5
30°	1439.7	1434.8	1439.7	1439.7	1442.1	1442.1	1444.5	1444.5	1444.5	1451.7	1456.5
32.5°	1333.6	1336.0	1343.2	1340.8	1338.4	1345.6	1345.6	1350.4	1352.9	1357.7	1360.1
35°	1220.2	1222.6	1222.6	1225.0	1229.9	1225.0	1237.1	1234.7	1237.1	1246.7	1251.6
37.5°	1099.6	1092.4	1104.5	1099.6	1102.1	1102.1	1106.9	1109.3	1116.5	1128.6	1128.6
40°	969.4	971.8	976.7	979.1	981.5	981.5	981.5	988.7	991.1	1005.6	1003.2
42.5°	856.1	856.1	860.9	863.3	863.3	863.3	863.3	870.6	875.4	880.2	885.0
45°	757.2	750.0	754.8	754.8	759.6	757.2	762.0	766.9	769.3	776.5	774.1
47.5°	663.2	660.8	663.2	665.6	663.2	665.6	668.0	670.4	672.8	672.8	672.8
50°	581.2	581.2	583.6	586.0	586.0	586.0	586.0	588.4	588.4	593.2	588.4
52.5°	513.6	516.1	516.1	513.6	516.1	516.1	518.5	518.5	516.1	516.1	508.8
55°	455.8	453.4	455.8	453.4	455.8	455.8	453.4	453.4	451.0	448.5	446.1
57.5°	400.3	400.3	400.3	400.3	397.9	400.3	397.9	395.5	395.5	390.7	383.4
60°	352.1	352.1	352.1	352.1	352.1	349.7	352.1	349.7	344.8	340.0	330.4
62.5°	311.1	308.7	311.1	308.7	308.7	306.3	306.3	303.8	299.0	294.2	284.6
65°	274.9	277.3	274.9	274.9	272.5	270.1	270.1	267.7	260.4	255.6	246.0
67.5°	236.3	233.9	233.9	233.9	231.5	231.5	231.5	226.7	221.9	214.6	205.0
70°	192.9	192.9	192.9	190.5	190.5	188.1	188.1	185.7	180.9	176.0	164.0
72.5°	151.9	151.9	151.9	147.1	149.5	147.1	147.1	142.3	139.9	132.6	125.4
75°	115.8	115.8	113.3	113.3	110.9	108.5	108.5	106.1	103.7	98.9	91.6
77.5°	84.4	84.4	84.4	82.0	79.6	77.2	77.2	74.8	72.3	69.9	65.1
80°	57.9	57.9	57.9	57.9	55.5	53.1	53.1	50.6	50.6	48.2	43.4
82.5°	38.6	38.6	38.6	38.6	36.2	36.2	36.2	33.8	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°	14.5	14.5	14.5	14.5	12.1	12.1	12.1	12.1	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°	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1717.0	1717.0	1714.6	1707.3	1709.8	1707.3	1709.8	1707.3	1700.1	1707.3	1700.1
5°	1726.6	1729.0	1724.2	1714.6	1717.0	1714.6	1714.6	1712.2	1704.9	1709.8	1704.9
7.5°	1736.3	1733.9	1731.5	1721.8	1724.2	1721.8	1721.8	1717.0	1709.8	1714.6	1707.3
10°	1741.1	1741.1	1736.3	1726.6	1726.6	1724.2	1726.6	1724.2	1714.6	1721.8	1717.0
12.5°	1741.1	1738.7	1738.7	1726.6	1729.0	1726.6	1729.0	1724.2	1717.0	1721.8	1719.4
15°	1733.9	1733.9	1731.5	1719.4	1721.8	1721.8	1724.2	1719.4	1712.2	1719.4	1714.6
17.5°	1719.4	1719.4	1717.0	1707.3	1712.2	1712.2	1714.6	1709.8	1702.5	1707.3	1707.3
20°	1690.5	1692.9	1692.9	1685.6	1690.5	1690.5	1692.9	1690.5	1688.1	1690.5	1685.6
22.5°	1656.7	1661.5	1661.5	1654.3	1659.1	1659.1	1666.3	1663.9	1659.1	1661.5	1659.1
25°	1606.1	1610.9	1615.7	1610.9	1615.7	1615.7	1622.9	1620.5	1615.7	1620.5	1613.3
27.5°	1548.2	1550.6	1555.4	1550.6	1557.8	1555.4	1562.7	1560.2	1553.0	1560.2	1557.8
30°	1466.2	1475.8	1483.1	1475.8	1483.1	1483.1	1487.9	1485.5	1483.1	1480.7	1480.7
32.5°	1374.6	1384.2	1384.2	1381.8	1386.6	1386.6	1389.0	1384.2	1381.8	1384.2	1386.6
35°	1261.2	1266.0	1270.9	1268.4	1270.9	1273.3	1270.9	1273.3	1266.0	1268.4	1268.4
37.5°	1138.2	1143.1	1143.1	1135.8	1140.6	1140.6	1135.8	1135.8	1131.0	1135.8	1126.2
40°	1008.0	1003.2	1005.6	1000.8	996.0	996.0	993.5	983.9	979.1	981.5	983.9
42.5°	880.2	880.2	873.0	860.9	848.8	848.8	841.6	836.8	827.1	832.0	829.6
45°	771.7	759.6	750.0	730.7	723.5	718.6	706.6	694.5	689.7	692.1	689.7
47.5°	668.0	658.3	634.2	607.7	600.5	593.2	578.8	564.3	559.5	554.6	554.6
50°	581.2	564.3	537.8	508.8	496.8	484.7	465.4	451.0	441.3	443.7	443.7
52.5°	501.6	482.3	451.0	414.8	400.3	385.8	369.0	352.1	344.8	342.4	342.4
55°	431.7	410.0	378.6	337.6	325.6	308.7	287.0	267.7	258.0	255.6	260.4
57.5°	369.0	349.7	313.5	272.5	258.0	241.2	219.4	202.6	190.5	188.1	190.5
60°	318.3	291.8	260.4	221.9	202.6	188.1	164.0	149.5	137.5	132.6	135.0
62.5°	267.7	243.6	212.2	173.6	159.2	144.7	123.0	106.1	96.5	94.0	96.5
65°	229.1	205.0	176.0	142.3	127.8	113.3	94.0	77.2	69.9	67.5	69.9
67.5°	190.5	168.8	144.7	113.3	101.3	89.2	69.9	57.9	48.2	45.8	48.2
70°	154.3	135.0	110.9	89.2	77.2	67.5	53.1	41.0	33.8	31.3	33.8
72.5°	115.8	101.3	84.4	65.1	57.9	50.6	38.6	28.9	24.1	21.7	24.1
75°	84.4	72.3	60.3	45.8	41.0	36.2	26.5	19.3	16.9	14.5	16.9
77.5°	57.9	50.6	41.0	31.3	26.5	24.1	16.9	14.5	12.1	9.6	9.6
80°	38.6	33.8	26.5	21.7	19.3	16.9	12.1	9.6	7.2	7.2	7.2
82.5°	24.1	19.3	16.9	12.1	9.6	9.6	7.2	4.8	4.8	4.8	4.8
85°	14.5	12.1	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°	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1704.9	1700.1	1700.1	1702.5	1704.9	1707.3	1702.5	1700.1	1700.1	1707.3	1702.5
5°	1704.9	1702.5	1702.5	1702.5	1707.3	1709.8	1704.9	1702.5	1704.9	1712.2	1709.8
7.5°	1712.2	1707.3	1709.8	1709.8	1712.2	1717.0	1712.2	1709.8	1712.2	1719.4	1714.6
10°	1717.0	1712.2	1714.6	1712.2	1719.4	1721.8	1717.0	1714.6	1717.0	1726.6	1724.2
12.5°	1719.4	1717.0	1717.0	1714.6	1721.8	1724.2	1719.4	1717.0	1719.4	1726.6	1724.2
15°	1714.6	1712.2	1712.2	1712.2	1717.0	1721.8	1714.6	1712.2	1712.2	1719.4	1717.0
17.5°	1704.9	1700.1	1700.1	1700.1	1702.5	1704.9	1697.7	1695.3	1692.9	1700.1	1697.7
20°	1688.1	1683.2	1678.4	1678.4	1680.8	1680.8	1676.0	1668.8	1668.8	1671.2	1666.3
22.5°	1656.7	1654.3	1649.5	1647.1	1651.9	1649.5	1639.8	1632.6	1630.2	1632.6	1627.8
25°	1613.3	1608.5	1606.1	1603.6	1606.1	1603.6	1594.0	1584.4	1584.4	1584.4	1577.1
27.5°	1553.0	1548.2	1545.8	1545.8	1548.2	1543.4	1533.7	1524.1	1519.2	1519.2	1512.0
30°	1475.8	1475.8	1473.4	1471.0	1468.6	1468.6	1454.1	1444.5	1439.7	1442.1	1437.3
32.5°	1381.8	1379.4	1377.0	1369.7	1372.1	1369.7	1357.7	1350.4	1343.2	1338.4	1336.0
35°	1261.2	1261.2	1258.8	1258.8	1258.8	1256.4	1244.3	1237.1	1232.3	1229.9	1222.6
37.5°	1128.6	1126.2	1123.8	1123.8	1123.8	1123.8	1116.5	1109.3	1109.3	1106.9	1102.1
40°	979.1	981.5	983.9	981.5	988.7	996.0	986.3	981.5	979.1	986.3	976.7
42.5°	834.4	832.0	844.0	846.4	846.4	858.5	860.9	863.3	860.9	865.7	865.7
45°	694.5	692.1	704.2	709.0	721.0	735.5	742.7	754.8	759.6	764.4	759.6
47.5°	561.9	571.5	581.2	593.2	602.9	627.0	641.5	653.5	658.3	665.6	665.6
50°	451.0	460.6	477.5	487.1	499.2	528.1	552.2	569.1	578.8	586.0	583.6
52.5°	347.3	364.1	385.8	395.5	412.4	446.1	472.7	491.9	504.0	511.2	513.6
55°	267.7	282.1	303.8	318.3	335.2	371.4	405.1	426.8	438.9	448.5	453.4
57.5°	197.7	214.6	238.7	250.8	270.1	311.1	340.0	366.5	381.0	393.1	395.5
60°	144.7	161.6	183.3	197.7	217.0	258.0	291.8	315.9	332.8	342.4	347.3
62.5°	103.7	120.6	142.3	156.7	173.6	209.8	243.6	267.7	284.6	296.6	303.8
65°	74.8	91.6	113.3	125.4	139.9	173.6	205.0	229.1	246.0	260.4	265.3
67.5°	55.5	67.5	86.8	98.9	113.3	139.9	166.4	188.1	205.0	217.0	221.9
70°	41.0	50.6	67.5	74.8	84.4	108.5	130.2	149.5	164.0	173.6	178.5
72.5°	28.9	36.2	48.2	55.5	62.7	82.0	98.9	113.3	123.0	132.6	137.5
75°	19.3	24.1	33.8	38.6	43.4	57.9	69.9	82.0	89.2	96.5	98.9
77.5°	12.1	16.9	24.1	26.5	31.3	38.6	48.2	55.5	60.3	65.1	69.9
80°	7.2	9.6	14.5	16.9	19.3	26.5	31.3	36.2	41.0	45.8	48.2
82.5°	4.8	7.2	9.6	9.6	12.1	14.5	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	12.1	14.5	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: P252709

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBDW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1697.7	1704.9	1697.7	1702.5	1700.1	1700.1	1697.7	1700.1
5°	1704.9	1714.6	1704.9	1712.2	1707.3	1707.3	1707.3	1709.8
7.5°	1712.2	1721.8	1714.6	1721.8	1719.4	1717.0	1717.0	1721.8
10°	1719.4	1726.6	1721.8	1729.0	1726.6	1724.2	1724.2	1729.0
12.5°	1719.4	1729.0	1724.2	1731.5	1729.0	1726.6	1726.6	1729.0
15°	1712.2	1724.2	1717.0	1724.2	1721.8	1719.4	1719.4	1724.2
17.5°	1690.5	1700.1	1695.3	1700.1	1700.1	1697.7	1700.1	1702.5
20°	1661.5	1668.8	1663.9	1668.8	1668.8	1663.9	1666.3	1668.8
22.5°	1620.5	1627.8	1622.9	1627.8	1625.4	1622.9	1622.9	1620.5
25°	1569.9	1579.5	1572.3	1577.1	1572.3	1567.5	1567.5	1569.9
27.5°	1507.2	1514.4	1504.8	1509.6	1504.8	1500.0	1500.0	1497.5
30°	1425.2	1427.6	1420.4	1425.2	1420.4	1418.0	1413.1	1413.1
32.5°	1326.3	1328.7	1321.5	1321.5	1316.7	1316.7	1307.0	1314.3
35°	1210.6	1213.0	1210.6	1208.2	1200.9	1198.5	1196.1	1196.1
37.5°	1090.0	1090.0	1082.8	1080.4	1075.5	1070.7	1073.1	1065.9
40°	967.0	964.6	957.4	959.8	957.4	950.1	947.7	945.3
42.5°	851.3	851.3	844.0	846.4	841.6	839.2	832.0	834.4
45°	750.0	750.0	742.7	742.7	740.3	733.1	735.5	730.7
47.5°	658.3	658.3	655.9	655.9	648.7	646.3	646.3	646.3
50°	578.8	578.8	578.8	578.8	576.3	573.9	571.5	573.9
52.5°	511.2	516.1	513.6	513.6	511.2	508.8	506.4	506.4
55°	451.0	453.4	453.4	455.8	453.4	451.0	453.4	451.0
57.5°	397.9	402.7	402.7	402.7	402.7	402.7	400.3	397.9
60°	352.1	354.5	354.5	356.9	356.9	356.9	354.5	354.5
62.5°	306.3	311.1	313.5	313.5	315.9	313.5	313.5	313.5
65°	270.1	274.9	277.3	274.9	277.3	277.3	274.9	274.9
67.5°	226.7	231.5	231.5	231.5	231.5	233.9	231.5	231.5
70°	183.3	188.1	185.7	188.1	188.1	188.1	188.1	188.1
72.5°	139.9	142.3	144.7	144.7	147.1	144.7	144.7	144.7
75°	101.3	106.1	106.1	106.1	106.1	108.5	108.5	108.5
77.5°	72.3	74.8	74.8	77.2	77.2	77.2	77.2	79.6
80°	50.6	50.6	53.1	53.1	55.5	55.5	55.5	55.5
82.5°	33.8	36.2	36.2	36.2	36.2	36.2	36.2	36.2
85°	19.3	21.7	21.7	21.7	21.7	24.1	24.1	24.1
87.5°	12.1	12.1	12.1	12.1	12.1	12.1	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)