

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: P252397

Luminaire Tested: **LD6B40D010 EU6B30509040 6LBLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-5)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B40D010 EU6B30509040 6LBLWW1LI
Description: PORTFOLIO 6 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3278.0 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.03 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

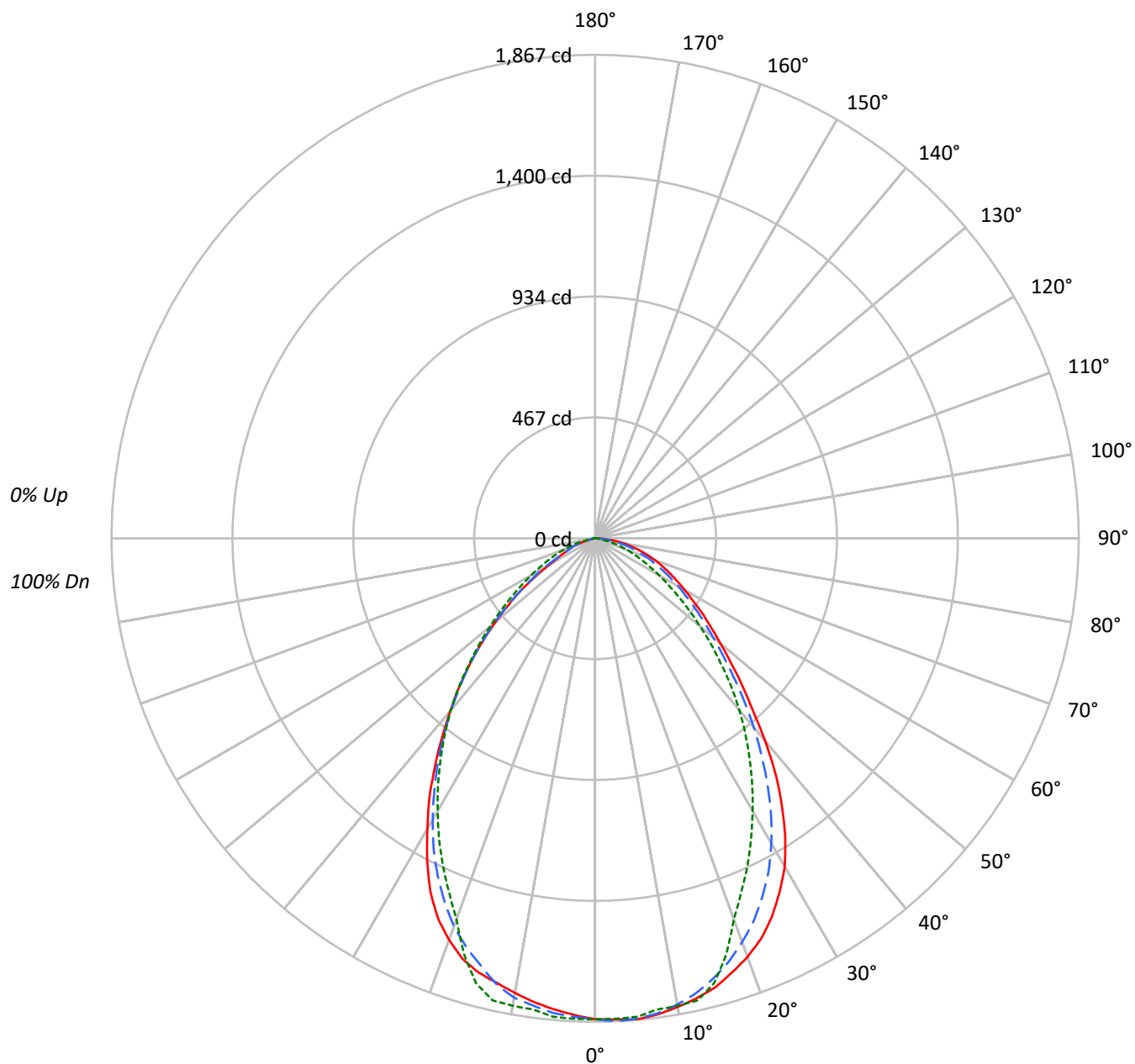
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	86	100	94	89	85		91	86	83			88	84	81			85
3	95	86	80	74	93	85	79	73		82	77	72			79	75	71			77
4	88	78	71	65	86	77	70	64		74	68	64			72	67	63			70
5	82	71	63	57	80	70	63	57		68	62	57			66	60	56			64
6	77	65	57	51	75	64	57	51		62	56	51			61	55	50			59
7	72	60	52	46	70	59	51	46		57	51	46			56	50	46			55
8	67	55	47	42	66	54	47	42		53	46	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	40	35			45	39	35			44

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	121171	121171	121171
5°	122112	121477	119584
10°	121762	121444	118092
15°	121211	120070	117300
20°	119409	108689	114549
25°	116162	100189	108352
30°	110303	91583	97579
35°	100089	82798	85872
40°	86894	73753	73958
45°	74107	63432	62758
50°	64146	53621	50677
55°	57338	44724	39230
60°	52245	37135	26436
65°	48782	30535	19729
70°	46467	24855	16557
75°	43785	17645	5470
80°	41703	9055	1803
85°	34284	5390	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.4	5.4
10°-20°	490.6	15.0
20°-30°	677.1	20.7
30°-40°	689.0	21.0
40°-50°	553.8	16.9
50°-60°	368.2	11.2
60°-70°	209.8	6.4
70°-80°	94.2	2.9
80°-90°	19.8	0.6
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°	1343.1	41.0
0°-40°	2032.1	62.0
0°-60°	2954.1	90.1
0°-90°	3278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3278.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1857	1857	1857	1857	1857	
5°	1865	1862	1855	1840	1826	177
15°	1795	1761	1778	1708	1737	505
25°	1614	1527	1392	1438	1505	740
35°	1257	1160	1040	1059	1078	781
45°	803	755	688	680	680	623
55°	504	470	393	350	345	453
65°	316	282	198	128	128	315
75°	174	145	70	29	22	185
85°	46	31	7	2	0	54
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°	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3
2.5°	1859.8	1869.4	1867.0	1864.6	1867.0	1864.6	1859.8	1859.8	1854.9	1854.9	1867.0
5°	1864.6	1869.4	1867.0	1864.6	1864.6	1867.0	1857.3	1857.3	1852.5	1850.1	1862.2
7.5°	1854.9	1862.2	1857.3	1857.3	1854.9	1857.3	1847.7	1847.7	1840.5	1838.0	1850.1
10°	1838.0	1847.7	1842.9	1842.9	1842.9	1838.0	1833.2	1830.8	1823.6	1821.2	1828.4
12.5°	1818.7	1826.0	1823.6	1818.7	1818.7	1818.7	1809.1	1806.7	1797.0	1792.2	1799.5
15°	1794.6	1799.5	1797.0	1794.6	1789.8	1789.8	1780.2	1775.3	1765.7	1756.0	1760.9
17.5°	1758.4	1765.7	1760.9	1758.4	1751.2	1751.2	1741.6	1736.7	1722.3	1712.6	1715.0
20°	1719.9	1722.3	1719.9	1715.0	1707.8	1705.4	1695.7	1686.1	1674.0	1662.0	1659.5
22.5°	1674.0	1676.4	1669.2	1664.4	1657.1	1654.7	1642.7	1635.4	1616.1	1601.7	1599.2
25°	1613.7	1616.1	1616.1	1604.1	1599.2	1594.4	1582.4	1570.3	1553.4	1534.1	1526.9
27.5°	1541.4	1548.6	1543.8	1531.7	1522.1	1519.6	1507.6	1497.9	1476.2	1459.3	1449.7
30°	1464.2	1461.8	1459.3	1452.1	1437.6	1435.2	1423.2	1411.1	1394.2	1372.5	1360.4
32.5°	1365.3	1365.3	1362.9	1355.6	1341.1	1336.3	1326.7	1312.2	1292.9	1276.0	1264.0
35°	1256.7	1259.1	1256.7	1242.2	1232.6	1227.8	1223.0	1206.1	1189.2	1169.9	1160.2
37.5°	1143.4	1136.1	1138.5	1126.5	1114.4	1119.2	1104.8	1097.5	1078.2	1063.8	1054.1
40°	1020.3	1025.2	1015.5	1010.7	1003.4	996.2	996.2	984.2	974.5	957.6	952.8
42.5°	899.7	907.0	904.5	899.7	890.1	892.5	880.4	875.6	863.5	856.3	849.1
45°	803.2	803.2	803.2	798.4	796.0	791.2	783.9	776.7	769.5	759.8	755.0
47.5°	709.2	709.2	711.6	706.8	701.9	699.5	694.7	694.7	682.6	673.0	668.2
50°	632.0	632.0	632.0	627.2	622.3	622.3	617.5	612.7	605.4	598.2	593.4
52.5°	562.0	562.0	562.0	557.2	554.8	552.4	550.0	547.6	537.9	533.1	528.3
55°	504.1	501.7	501.7	499.3	494.5	494.5	492.1	487.3	480.0	472.8	470.4
57.5°	446.2	448.7	446.2	446.2	441.4	441.4	436.6	434.2	426.9	422.1	417.3
60°	400.4	400.4	400.4	398.0	393.2	395.6	390.8	388.4	381.1	373.9	369.1
62.5°	354.6	357.0	357.0	354.6	349.8	349.8	347.3	344.9	337.7	330.5	323.2
65°	316.0	316.0	316.0	313.6	311.2	311.2	308.8	306.3	299.1	289.5	282.2
67.5°	279.8	277.4	277.4	277.4	275.0	272.6	270.2	267.7	260.5	253.3	243.6
70°	243.6	243.6	243.6	241.2	236.4	238.8	236.4	234.0	226.7	219.5	212.3
72.5°	209.9	209.9	207.4	205.0	205.0	202.6	202.6	200.2	193.0	183.3	176.1
75°	173.7	173.7	173.7	173.7	168.8	171.3	166.4	164.0	159.2	152.0	144.7
77.5°	142.3	142.3	142.3	139.9	137.5	137.5	135.1	132.7	125.4	120.6	111.0
80°	111.0	111.0	111.0	111.0	108.5	106.1	103.7	101.3	96.5	89.2	82.0
82.5°	82.0	82.0	79.6	79.6	79.6	77.2	74.8	72.4	67.5	62.7	57.9
85°	45.8	48.2	48.2	43.4	45.8	43.4	43.4	38.6	38.6	33.8	31.4
87.5°	16.9	14.5	14.5	14.5	14.5	14.5	14.5	12.1	12.1	12.1	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3
2.5°	1857.3	1854.9	1864.6	1864.6	1850.1	1857.3	1859.8	1854.9	1854.9	1857.3	1850.1
5°	1852.5	1847.7	1857.3	1859.8	1845.3	1852.5	1854.9	1850.1	1852.5	1854.9	1845.3
7.5°	1835.6	1835.6	1842.9	1845.3	1830.8	1838.0	1838.0	1833.2	1835.6	1835.6	1828.4
10°	1818.7	1811.5	1818.7	1818.7	1806.7	1809.1	1813.9	1811.5	1821.2	1833.2	1833.2
12.5°	1787.4	1780.2	1792.2	1792.2	1785.0	1794.6	1806.7	1813.9	1823.6	1828.4	1813.9
15°	1748.8	1751.2	1772.9	1789.8	1782.6	1797.0	1809.1	1804.3	1792.2	1777.7	1756.0
17.5°	1698.1	1690.9	1710.2	1719.9	1710.2	1715.0	1724.7	1715.0	1695.7	1683.7	1654.7
20°	1640.3	1621.0	1621.0	1616.1	1599.2	1599.2	1596.8	1579.9	1572.7	1565.5	1553.4
22.5°	1575.1	1553.4	1546.2	1531.7	1517.2	1514.8	1507.6	1490.7	1481.0	1476.2	1461.8
25°	1500.3	1481.0	1469.0	1454.5	1432.8	1428.0	1420.7	1403.9	1399.0	1391.8	1379.7
27.5°	1423.2	1399.0	1382.2	1367.7	1348.4	1346.0	1331.5	1319.4	1309.8	1305.0	1295.3
30°	1333.9	1307.4	1295.3	1276.0	1261.5	1256.7	1244.7	1227.8	1220.5	1215.7	1208.5
32.5°	1235.0	1213.3	1201.2	1184.4	1165.1	1167.5	1153.0	1138.5	1133.7	1128.9	1121.6
35°	1138.5	1116.8	1102.3	1087.9	1075.8	1071.0	1061.3	1049.3	1042.0	1039.6	1034.8
37.5°	1032.4	1015.5	1003.4	989.0	979.3	974.5	969.7	957.6	952.8	952.8	943.1
40°	928.7	914.2	904.5	897.3	885.3	882.8	878.0	870.8	868.4	866.0	858.7
42.5°	834.6	815.3	808.1	803.2	796.0	791.2	788.8	783.9	781.5	779.1	771.9
45°	745.3	728.5	721.2	716.4	709.2	706.8	704.3	697.1	692.3	687.5	685.0
47.5°	658.5	646.5	644.0	632.0	627.2	622.3	617.5	612.7	610.3	607.9	598.2
50°	583.7	576.5	564.4	557.2	552.4	550.0	540.3	533.1	530.7	528.3	521.0
52.5°	516.2	506.5	499.3	487.3	484.8	480.0	475.2	465.5	460.7	458.3	451.1
55°	455.9	448.7	439.0	429.4	422.1	419.7	412.5	402.8	398.0	393.2	388.4
57.5°	405.2	393.2	383.5	373.9	369.1	361.8	354.6	349.8	342.5	335.3	328.1
60°	357.0	347.3	335.3	325.6	320.8	316.0	306.3	299.1	291.9	284.6	277.4
62.5°	311.2	301.5	289.5	279.8	275.0	270.2	260.5	253.3	246.0	238.8	229.2
65°	270.2	260.5	250.9	241.2	236.4	231.6	221.9	212.3	205.0	197.8	188.1
67.5°	236.4	224.3	214.7	205.0	200.2	195.4	185.7	178.5	168.8	161.6	152.0
70°	200.2	190.6	183.3	173.7	168.8	164.0	154.4	144.7	137.5	130.3	120.6
72.5°	168.8	156.8	149.6	139.9	135.1	132.7	123.0	115.8	108.5	98.9	91.7
75°	135.1	125.4	115.8	108.5	103.7	101.3	91.7	84.4	77.2	70.0	62.7
77.5°	103.7	96.5	86.8	79.6	74.8	72.4	62.7	55.5	48.2	43.4	36.2
80°	77.2	67.5	62.7	55.5	53.1	48.2	43.4	36.2	31.4	24.1	19.3
82.5°	53.1	45.8	41.0	36.2	33.8	31.4	26.5	21.7	16.9	14.5	12.1
85°	28.9	24.1	21.7	19.3	16.9	16.9	14.5	12.1	9.6	7.2	4.8
87.5°	9.6	7.2	7.2	7.2	7.2	4.8	4.8	4.8	2.4	2.4	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°	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3
2.5°	1854.9	1854.9	1854.9	1852.5	1852.5	1852.5	1850.1	1859.8	1850.1	1847.7	1854.9
5°	1852.5	1847.7	1847.7	1847.7	1847.7	1845.3	1842.9	1847.7	1840.5	1838.0	1838.0
7.5°	1838.0	1835.6	1835.6	1833.2	1830.8	1828.4	1826.0	1828.4	1821.2	1818.7	1818.7
10°	1840.5	1835.6	1835.6	1828.4	1823.6	1816.3	1809.1	1811.5	1801.9	1794.6	1794.6
12.5°	1811.5	1799.5	1792.2	1785.0	1780.2	1777.7	1768.1	1772.9	1763.3	1760.9	1760.9
15°	1746.4	1731.9	1719.9	1715.0	1715.0	1710.2	1703.0	1712.6	1707.8	1710.2	1722.3
17.5°	1645.1	1637.8	1630.6	1628.2	1630.6	1635.4	1640.3	1654.7	1654.7	1662.0	1674.0
20°	1555.8	1551.0	1555.8	1555.8	1558.2	1567.9	1577.5	1589.6	1594.4	1601.7	1618.5
22.5°	1469.0	1469.0	1473.8	1481.0	1478.6	1495.5	1497.9	1519.6	1519.6	1534.1	1548.6
25°	1384.6	1384.6	1389.4	1391.8	1396.6	1406.3	1415.9	1432.8	1437.6	1452.1	1464.2
27.5°	1302.6	1300.1	1300.1	1302.6	1307.4	1319.4	1324.3	1343.6	1350.8	1360.4	1372.5
30°	1210.9	1208.5	1213.3	1218.1	1215.7	1227.8	1235.0	1249.5	1254.3	1264.0	1273.6
32.5°	1124.1	1124.1	1124.1	1128.9	1128.9	1138.5	1138.5	1155.4	1155.4	1162.6	1172.3
35°	1034.8	1034.8	1037.2	1039.6	1042.0	1044.5	1046.9	1056.5	1058.9	1061.3	1066.2
37.5°	950.4	948.0	950.4	950.4	945.6	955.2	955.2	964.9	957.6	964.9	967.3
40°	863.5	863.5	861.1	861.1	861.1	866.0	861.1	868.4	863.5	868.4	866.0
42.5°	774.3	774.3	769.5	774.3	771.9	771.9	771.9	776.7	769.5	774.3	776.7
45°	685.0	682.6	682.6	680.2	680.2	680.2	682.6	682.6	680.2	685.0	685.0
47.5°	598.2	595.8	595.8	595.8	595.8	598.2	591.0	595.8	591.0	591.0	591.0
50°	523.4	521.0	518.6	516.2	513.8	513.8	511.4	511.4	506.5	504.1	501.7
52.5°	451.1	448.7	443.8	443.8	441.4	439.0	431.8	431.8	424.5	422.1	422.1
55°	385.9	378.7	376.3	371.5	371.5	366.6	361.8	357.0	349.8	344.9	344.9
57.5°	325.6	318.4	313.6	311.2	308.8	303.9	294.3	291.9	282.2	279.8	277.4
60°	272.6	265.3	258.1	253.3	250.9	243.6	234.0	229.2	224.3	217.1	209.9
62.5°	221.9	214.7	205.0	202.6	197.8	190.6	183.3	176.1	171.3	164.0	159.2
65°	178.5	171.3	164.0	159.2	154.4	147.1	139.9	132.7	127.8	125.4	123.0
67.5°	144.7	135.1	127.8	125.4	120.6	115.8	108.5	106.1	101.3	101.3	101.3
70°	113.4	106.1	98.9	96.5	94.1	89.2	84.4	84.4	84.4	84.4	84.4
72.5°	84.4	79.6	72.4	70.0	67.5	65.1	60.3	62.7	60.3	60.3	60.3
75°	53.1	48.2	43.4	41.0	38.6	36.2	33.8	31.4	28.9	26.5	26.5
77.5°	28.9	24.1	21.7	19.3	19.3	16.9	14.5	14.5	12.1	12.1	12.1
80°	16.9	14.5	12.1	9.6	9.6	7.2	7.2	7.2	7.2	4.8	4.8
82.5°	9.6	7.2	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4
85°	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.0
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	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



TEST NUMBER: P252397

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBLWW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3	1857.3
2.5°	1842.9	1850.1	1842.9	1850.1	1850.1	1850.1	1850.1	1842.9
5°	1830.8	1835.6	1828.4	1833.2	1835.6	1833.2	1833.2	1826.0
7.5°	1809.1	1813.9	1806.7	1813.9	1816.3	1813.9	1811.5	1806.7
10°	1787.4	1789.8	1782.6	1787.4	1792.2	1792.2	1789.8	1782.6
12.5°	1753.6	1760.9	1753.6	1758.4	1763.3	1765.7	1765.7	1758.4
15°	1715.0	1727.1	1722.3	1729.5	1736.7	1739.1	1739.1	1736.7
17.5°	1676.4	1688.5	1681.3	1693.3	1700.6	1705.4	1707.8	1703.0
20°	1621.0	1635.4	1630.6	1640.3	1649.9	1657.1	1657.1	1649.9
22.5°	1548.6	1567.9	1565.5	1572.7	1584.8	1587.2	1592.0	1587.2
25°	1469.0	1483.5	1481.0	1488.3	1502.8	1502.8	1505.2	1505.2
27.5°	1377.3	1391.8	1389.4	1394.2	1403.9	1406.3	1408.7	1403.9
30°	1278.4	1285.7	1285.7	1292.9	1300.1	1302.6	1302.6	1295.3
32.5°	1169.9	1179.5	1184.4	1181.9	1189.2	1194.0	1191.6	1191.6
35°	1071.0	1073.4	1075.8	1078.2	1080.6	1085.5	1080.6	1078.2
37.5°	964.9	972.1	967.3	972.1	976.9	974.5	972.1	972.1
40°	868.4	870.8	866.0	870.8	873.2	873.2	873.2	868.4
42.5°	771.9	776.7	771.9	776.7	776.7	776.7	776.7	774.3
45°	675.4	680.2	680.2	682.6	682.6	680.2	680.2	680.2
47.5°	586.1	591.0	586.1	591.0	593.4	588.6	588.6	588.6
50°	501.7	499.3	499.3	501.7	501.7	501.7	501.7	499.3
52.5°	414.9	417.3	417.3	417.3	419.7	417.3	419.7	419.7
55°	340.1	340.1	340.1	342.5	340.1	340.1	342.5	344.9
57.5°	272.6	270.2	267.7	267.7	270.2	267.7	267.7	267.7
60°	209.9	207.4	205.0	205.0	205.0	205.0	205.0	202.6
62.5°	156.8	156.8	156.8	159.2	159.2	159.2	159.2	161.6
65°	125.4	125.4	125.4	125.4	125.4	125.4	125.4	127.8
67.5°	101.3	101.3	101.3	103.7	103.7	103.7	103.7	103.7
70°	84.4	84.4	86.8	84.4	86.8	86.8	86.8	86.8
72.5°	57.9	57.9	57.9	57.9	57.9	55.5	57.9	55.5
75°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	21.7
77.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
80°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	2.4	2.4	2.4	2.4	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)