

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: P252293

Luminaire Tested: **LD6B40D010 EU6B30509040 6LBSW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252293
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 EU6B30509040 6LBSW1H
Description: PORTFOLIO 6 INCH SINGLE 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: 3350.0 lumens
Efficiency: N/A
Efficacy: 77.9 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

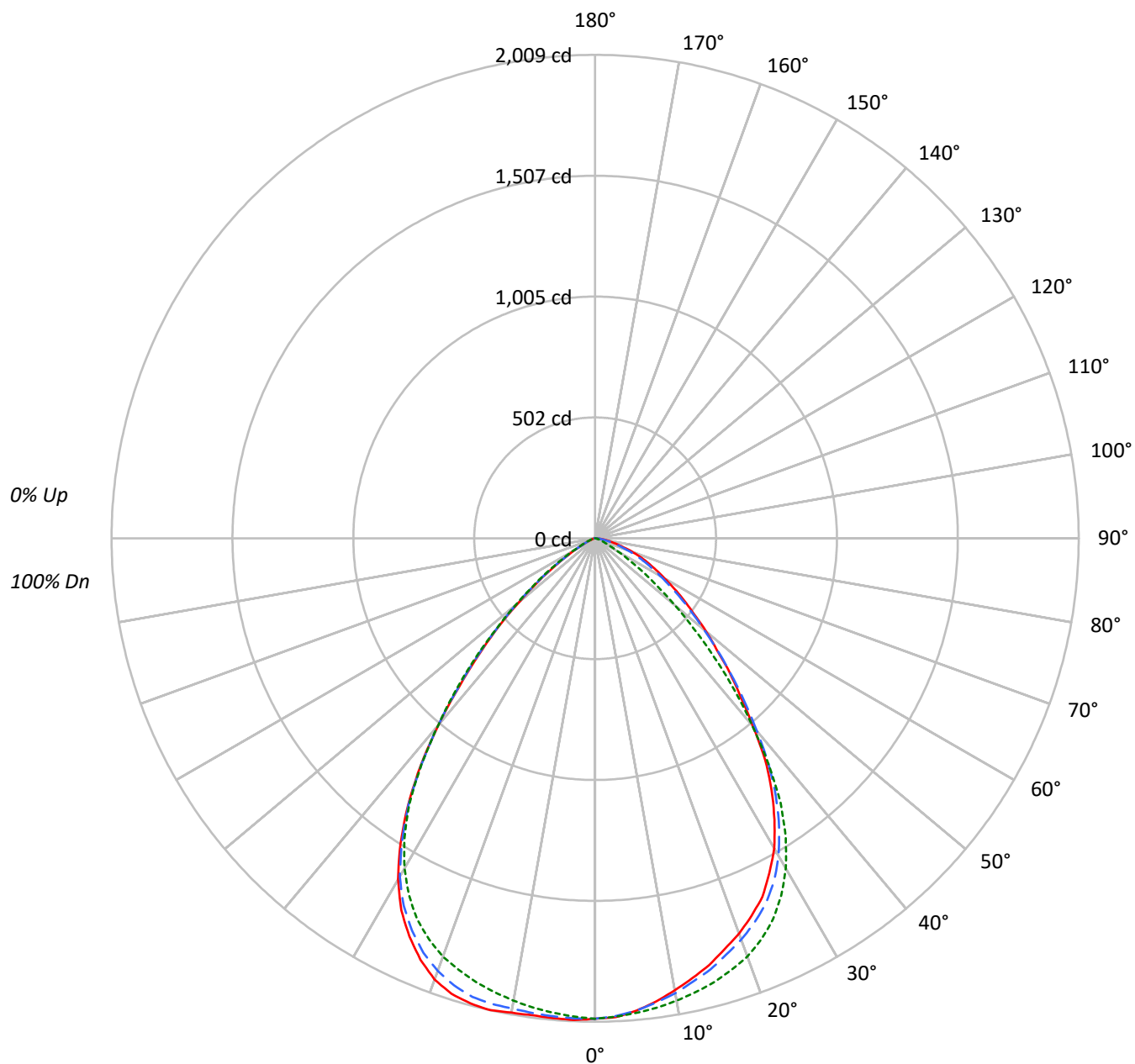
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	112	108	105	102	109	106	103	101	102	100	98		98	96	95		95
2	104	98	93	89	102	96	92	88	93	89	86		90	87	84		87
3	97	89	83	78	95	88	82	77	85	80	76		82	78	75		80
4	91	81	74	69	89	80	74	69	78	72	68		76	71	67		74
5	85	74	67	62	83	73	66	61	71	65	61		70	64	60		68
6	79	68	61	55	78	67	60	55	66	59	55		64	59	54		63
7	74	63	55	50	73	62	55	50	61	54	50		59	54	49		58
8	70	58	51	46	68	57	50	46	56	50	45		55	49	45		54
9	65	54	47	42	64	53	46	42	52	46	42		51	46	41		50
10	62	50	43	39	61	50	43	38	49	43	38		48	42	38		47

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	130272	130272	130272
5°	129035	129663	131084
10°	126373	129248	132600
15°	123953	129005	135192
20°	121387	128420	135453
25°	118394	125859	131416
30°	112096	119358	123358
35°	101793	106986	107942
40°	86877	86469	86060
45°	72981	64751	62749
50°	60949	43816	41614
55°	51298	26878	24409
60°	43424	14157	12278
65°	37605	7441	5959
70°	31283	4597	3224
75°	23090	3050	1815
80°	18109	1803	902
85°	14447	1797	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.2	5.6
10°-20°	538.8	16.1
20°-30°	795.7	23.8
30°-40°	820.0	24.5
40°-50°	566.4	16.9
50°-60°	279.2	8.3
60°-70°	113.1	3.4
70°-80°	40.3	1.2
80°-90°	8.3	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°	1522.7	45.5
0°-40°	2342.7	69.9
0°-60°	3188.2	95.2
0°-90°	3350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3350.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1997	1997	1997	1997	1997	
5°	1970	1970	1980	1994	2002	186
15°	1835	1854	1910	1973	2002	517
25°	1645	1676	1748	1799	1826	752
35°	1278	1310	1343	1350	1355	792
45°	791	796	702	692	680	611
55°	451	434	236	222	215	407
65°	244	220	48	39	39	242
75°	92	77	12	7	7	103
85°	19	14	2	0	0	24
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°	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8
2.5°	1992.0	1984.7	1989.6	1979.9	1992.0	1979.9	1982.3	1984.7	1982.3	1984.7	1987.2
5°	1970.3	1963.0	1970.3	1958.2	1970.3	1963.0	1963.0	1965.5	1965.5	1967.9	1970.3
7.5°	1941.3	1934.1	1941.3	1929.3	1943.8	1936.5	1936.5	1941.3	1938.9	1941.3	1946.2
10°	1907.6	1897.9	1905.2	1897.9	1912.4	1902.8	1907.6	1907.6	1907.6	1914.8	1919.6
12.5°	1871.4	1861.8	1871.4	1859.3	1873.8	1866.6	1869.0	1876.2	1878.6	1883.5	1885.9
15°	1835.2	1823.2	1828.0	1820.8	1835.2	1828.0	1830.4	1840.1	1840.1	1847.3	1854.5
17.5°	1789.4	1779.8	1789.4	1779.8	1791.8	1787.0	1791.8	1799.1	1799.1	1806.3	1813.5
20°	1748.4	1738.8	1746.0	1738.8	1753.2	1746.0	1748.4	1758.1	1760.5	1767.7	1774.9
22.5°	1697.8	1690.5	1695.4	1688.1	1702.6	1697.8	1700.2	1709.8	1712.2	1717.1	1729.1
25°	1644.7	1630.2	1637.5	1632.7	1647.1	1639.9	1644.7	1654.4	1659.2	1666.4	1676.1
27.5°	1567.5	1560.3	1565.1	1565.1	1577.2	1570.0	1572.4	1582.0	1589.2	1596.5	1608.5
30°	1488.0	1475.9	1480.7	1483.1	1492.8	1488.0	1492.8	1502.4	1504.8	1514.5	1524.1
32.5°	1386.7	1381.8	1391.5	1386.7	1391.5	1391.5	1393.9	1401.1	1406.0	1410.8	1422.8
35°	1278.1	1268.5	1278.1	1273.3	1285.4	1278.1	1285.4	1292.6	1292.6	1302.3	1309.5
37.5°	1160.0	1147.9	1152.7	1152.7	1157.6	1155.2	1155.2	1167.2	1169.6	1176.9	1184.1
40°	1020.1	1015.3	1024.9	1022.5	1024.9	1024.9	1027.3	1034.6	1039.4	1041.8	1044.2
42.5°	894.7	897.1	899.5	899.5	899.5	899.5	899.5	909.2	906.8	914.0	916.4
45°	791.0	781.4	786.2	783.8	791.0	783.8	791.0	798.2	793.4	800.7	795.8
47.5°	684.9	684.9	684.9	682.5	687.3	684.9	689.7	692.1	692.1	692.1	689.7
50°	600.5	593.3	595.7	595.7	598.1	595.7	600.5	602.9	602.9	598.1	588.4
52.5°	518.5	516.1	516.1	520.9	520.9	518.5	518.5	518.5	518.5	511.3	506.4
55°	451.0	446.1	448.6	448.6	448.6	448.6	451.0	448.6	448.6	441.3	434.1
57.5°	390.7	385.9	385.9	385.9	388.3	385.9	385.9	385.9	383.4	376.2	366.6
60°	332.8	330.4	332.8	332.8	335.2	332.8	332.8	332.8	328.0	320.7	311.1
62.5°	284.6	284.6	284.6	287.0	287.0	284.6	284.6	282.2	279.7	270.1	260.5
65°	243.6	241.2	243.6	243.6	246.0	246.0	243.6	241.2	238.7	229.1	219.5
67.5°	202.6	200.2	202.6	202.6	205.0	202.6	202.6	202.6	195.3	190.5	180.9
70°	164.0	161.6	161.6	161.6	164.0	159.2	161.6	161.6	156.8	149.5	139.9
72.5°	125.4	125.4	125.4	125.4	125.4	125.4	123.0	123.0	118.2	110.9	106.1
75°	91.6	91.6	94.1	94.1	91.6	91.6	91.6	89.2	86.8	82.0	77.2
77.5°	67.5	67.5	67.5	67.5	65.1	65.1	65.1	62.7	60.3	57.9	53.1
80°	48.2	48.2	48.2	45.8	48.2	45.8	45.8	45.8	41.0	38.6	36.2
82.5°	33.8	31.4	31.4	31.4	31.4	31.4	31.4	28.9	28.9	26.5	24.1
85°	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	16.9	14.5	14.5
87.5°	9.6	12.1	12.1	12.1	12.1	12.1	12.1	9.6	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°	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8
2.5°	1987.2	1987.2	1992.0	1984.7	1996.8	1989.6	1987.2	1999.2	1992.0	1989.6	1994.4
5°	1970.3	1972.7	1975.1	1970.3	1982.3	1975.1	1975.1	1987.2	1982.3	1979.9	1987.2
7.5°	1948.6	1951.0	1955.8	1953.4	1963.0	1958.2	1960.6	1972.7	1967.9	1967.9	1975.1
10°	1922.0	1926.9	1931.7	1931.7	1943.8	1938.9	1938.9	1953.4	1948.6	1951.0	1960.6
12.5°	1890.7	1897.9	1905.2	1907.6	1919.6	1912.4	1914.8	1931.7	1929.3	1931.7	1941.3
15°	1856.9	1866.6	1873.8	1873.8	1888.3	1881.0	1888.3	1905.2	1900.3	1910.0	1922.0
17.5°	1818.3	1828.0	1837.6	1840.1	1854.5	1849.7	1859.3	1876.2	1876.2	1881.0	1895.5
20°	1782.2	1794.2	1799.1	1806.3	1820.8	1818.3	1823.2	1842.5	1842.5	1849.7	1864.2
22.5°	1733.9	1746.0	1755.6	1762.9	1774.9	1774.9	1782.2	1799.1	1799.1	1803.9	1818.3
25°	1680.9	1695.4	1702.6	1709.8	1721.9	1719.5	1726.7	1741.2	1743.6	1748.4	1762.9
27.5°	1613.4	1625.4	1635.1	1639.9	1656.8	1647.1	1654.4	1671.2	1668.8	1673.7	1685.7
30°	1529.0	1541.0	1550.7	1550.7	1565.1	1565.1	1572.4	1579.6	1579.6	1584.4	1594.1
32.5°	1430.1	1444.5	1444.5	1451.8	1461.4	1451.8	1461.4	1471.1	1466.3	1473.5	1480.7
35°	1316.7	1324.0	1326.4	1326.4	1333.6	1331.2	1328.8	1336.0	1331.2	1343.3	1350.5
37.5°	1179.3	1188.9	1184.1	1188.9	1186.5	1179.3	1179.3	1191.3	1181.7	1184.1	1191.3
40°	1046.6	1046.6	1044.2	1032.2	1034.6	1027.3	1024.9	1027.3	1017.7	1015.3	1024.9
42.5°	909.2	906.8	899.5	882.6	885.1	873.0	863.4	863.4	858.5	856.1	858.5
45°	786.2	778.9	766.9	747.6	742.8	733.1	713.8	709.0	701.8	701.8	704.2
47.5°	672.8	663.2	643.9	622.2	610.1	598.1	578.8	571.5	559.5	554.7	559.5
50°	578.8	561.9	537.8	506.4	494.4	479.9	460.6	448.6	436.5	431.7	429.3
52.5°	492.0	467.9	443.7	405.1	395.5	381.0	354.5	342.4	330.4	320.7	320.7
55°	417.2	395.5	361.7	325.6	311.1	296.6	270.1	253.2	241.2	236.3	231.5
57.5°	349.7	325.6	294.2	255.6	241.2	226.7	200.2	183.3	171.2	164.0	159.2
60°	294.2	267.7	236.3	202.6	185.7	171.2	144.7	127.8	115.8	108.5	103.7
62.5°	241.2	219.5	188.1	156.8	142.3	127.8	106.1	89.2	77.2	72.3	65.1
65°	202.6	180.9	151.9	125.4	113.3	98.9	79.6	65.1	55.5	48.2	43.4
67.5°	164.0	147.1	123.0	98.9	86.8	77.2	60.3	48.2	38.6	33.8	31.4
70°	130.2	113.3	94.1	74.8	67.5	57.9	45.8	33.8	28.9	24.1	21.7
72.5°	96.5	84.4	69.9	55.5	48.2	43.4	31.4	26.5	19.3	16.9	14.5
75°	69.9	60.3	50.6	38.6	33.8	31.4	24.1	16.9	14.5	12.1	9.6
77.5°	48.2	43.4	33.8	26.5	24.1	21.7	16.9	12.1	9.6	7.2	7.2
80°	31.4	26.5	21.7	16.9	16.9	14.5	9.6	7.2	7.2	4.8	4.8
82.5°	19.3	16.9	14.5	12.1	9.6	9.6	7.2	4.8	4.8	2.4	2.4
85°	12.1	9.6	7.2	7.2	4.8	4.8	4.8	2.4	2.4	2.4	2.4
87.5°	4.8	4.8	4.8	2.4	2.4	2.4	2.4	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°	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8
2.5°	1994.4	1994.4	1999.2	1992.0	1996.8	1996.8	2001.6	1992.0	1996.8	1999.2	2004.0
5°	1984.7	1987.2	1992.0	1989.6	1992.0	1992.0	1996.8	1984.7	1994.4	1994.4	2001.6
7.5°	1975.1	1975.1	1979.9	1977.5	1982.3	1984.7	1989.6	1979.9	1989.6	1989.6	1996.8
10°	1963.0	1963.0	1970.3	1967.9	1975.1	1977.5	1984.7	1975.1	1984.7	1987.2	1994.4
12.5°	1946.2	1948.6	1955.8	1955.8	1963.0	1967.9	1975.1	1970.3	1982.3	1984.7	1994.4
15°	1926.9	1931.7	1941.3	1938.9	1946.2	1953.4	1963.0	1955.8	1972.7	1977.5	1987.2
17.5°	1902.8	1907.6	1914.8	1914.8	1922.0	1926.9	1938.9	1934.1	1948.6	1951.0	1963.0
20°	1866.6	1873.8	1883.5	1881.0	1888.3	1893.1	1902.8	1897.9	1912.4	1917.2	1929.3
22.5°	1823.2	1828.0	1835.2	1835.2	1842.5	1847.3	1856.9	1849.7	1864.2	1866.6	1876.2
25°	1765.3	1770.1	1774.9	1777.4	1784.6	1787.0	1791.8	1787.0	1799.1	1801.5	1813.5
27.5°	1690.5	1692.9	1700.2	1700.2	1705.0	1707.4	1714.6	1705.0	1721.9	1721.9	1729.1
30°	1601.3	1598.9	1608.5	1603.7	1608.5	1608.5	1615.8	1610.9	1623.0	1618.2	1625.4
32.5°	1483.1	1488.0	1488.0	1483.1	1492.8	1490.4	1490.4	1485.5	1492.8	1495.2	1500.0
35°	1345.7	1352.9	1352.9	1355.3	1357.7	1350.5	1352.9	1338.4	1350.5	1352.9	1355.3
37.5°	1196.2	1188.9	1193.7	1186.5	1198.6	1184.1	1184.1	1174.4	1184.1	1184.1	1186.5
40°	1024.9	1022.5	1027.3	1022.5	1020.1	1017.7	1012.9	1005.6	1015.3	1010.5	1017.7
42.5°	863.4	860.9	860.9	856.1	853.7	853.7	848.9	844.1	841.6	841.6	853.7
45°	697.0	701.8	697.0	694.5	699.4	694.5	697.0	687.3	692.1	687.3	692.1
47.5°	557.1	559.5	554.7	549.8	557.1	549.8	549.8	542.6	552.3	552.3	547.4
50°	431.7	429.3	424.4	429.3	426.9	426.9	426.9	419.6	424.4	417.2	422.0
52.5°	318.3	315.9	315.9	313.5	315.9	313.5	313.5	311.1	311.1	308.7	311.1
55°	231.5	229.1	224.3	224.3	224.3	226.7	224.3	221.9	221.9	219.5	221.9
57.5°	156.8	151.9	151.9	151.9	151.9	149.5	149.5	147.1	149.5	147.1	149.5
60°	101.3	101.3	96.5	96.5	96.5	96.5	96.5	94.1	96.5	96.5	96.5
62.5°	62.7	62.7	60.3	57.9	60.3	57.9	57.9	57.9	60.3	57.9	60.3
65°	41.0	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
67.5°	28.9	26.5	26.5	26.5	26.5	26.5	26.5	24.1	26.5	26.5	26.5
70°	19.3	19.3	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
72.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
75°	9.6	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
77.5°	7.2	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
80°	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
82.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
85°	2.4	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	2.4	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: P252293

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBSW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8	1996.8
2.5°	1996.8	1999.2	1994.4	1996.8	1992.0	1996.8	1999.2	2004.0
5°	1992.0	1994.4	1989.6	1994.4	1989.6	1994.4	1996.8	2001.6
7.5°	1987.2	1992.0	1987.2	1992.0	1987.2	1992.0	1994.4	1999.2
10°	1987.2	1994.4	1989.6	1996.8	1989.6	1994.4	1999.2	2001.6
12.5°	1987.2	1994.4	1992.0	1996.8	1994.4	1999.2	2004.0	2008.9
15°	1982.3	1989.6	1984.7	1992.0	1989.6	1992.0	2001.6	2001.6
17.5°	1955.8	1963.0	1963.0	1967.9	1967.9	1975.1	1979.9	1984.7
20°	1922.0	1929.3	1926.9	1934.1	1934.1	1941.3	1946.2	1951.0
22.5°	1871.4	1881.0	1878.6	1885.9	1883.5	1888.3	1897.9	1895.5
25°	1806.3	1818.3	1815.9	1820.8	1818.3	1818.3	1823.2	1825.6
27.5°	1726.7	1733.9	1731.5	1736.4	1731.5	1736.4	1741.2	1743.6
30°	1623.0	1627.8	1625.4	1627.8	1625.4	1630.2	1632.7	1637.5
32.5°	1497.6	1504.8	1497.6	1502.4	1500.0	1500.0	1509.7	1504.8
35°	1348.1	1350.5	1352.9	1352.9	1348.1	1350.5	1355.3	1355.3
37.5°	1181.7	1193.7	1179.3	1186.5	1184.1	1184.1	1184.1	1191.3
40°	1008.0	1010.5	1005.6	1005.6	1005.6	1003.2	1012.9	1010.5
42.5°	844.1	846.5	844.1	836.8	839.2	839.2	846.5	836.8
45°	684.9	689.7	687.3	687.3	682.5	682.5	684.9	680.1
47.5°	542.6	547.4	540.2	542.6	537.8	542.6	540.2	545.0
50°	412.4	417.2	414.8	417.2	417.2	412.4	419.6	410.0
52.5°	308.7	311.1	308.7	306.3	303.9	303.9	308.7	306.3
55°	219.5	217.0	217.0	217.0	219.5	219.5	217.0	214.6
57.5°	147.1	147.1	144.7	144.7	147.1	142.3	144.7	142.3
60°	94.1	94.1	94.1	94.1	91.6	94.1	94.1	94.1
62.5°	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9
65°	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
67.5°	24.1	26.5	26.5	26.5	24.1	24.1	24.1	24.1
70°	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
72.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
75°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
77.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
80°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
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)