

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: P252701

Luminaire Tested: **LD6B40D010 EU6B30508030 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252701  
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 EU6B30508030 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3900.0 lumens  
Efficiency: N/A  
Efficacy: 90.7 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

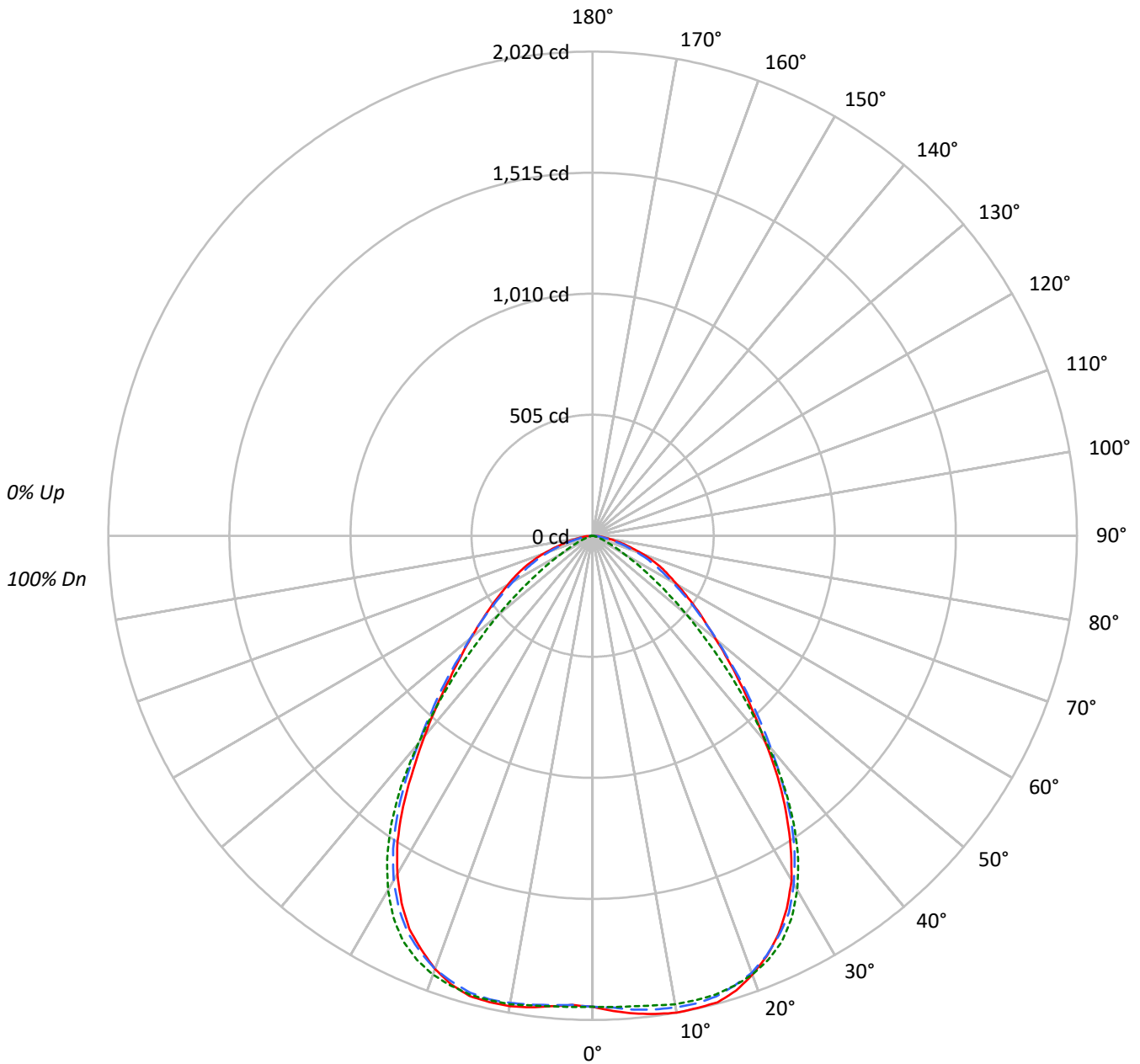
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

### Luminous Intensity Polar Plot





TEST NUMBER: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

**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	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°	128191	128191	128191
5°	131045	129048	129048
10°	133852	131461	132011
15°	136091	133841	134213
20°	135259	135259	133523
25°	132042	134439	130243
30°	124993	128549	122688
35°	112003	116432	109789
40°	95147	96331	92788
45°	80519	73590	77696
50°	67982	51905	67140
55°	59749	33509	59113
60°	52949	19951	53302
65°	48905	12010	48905
70°	42404	6886	41355
75°	33626	4210	31534
80°	25060	3118	24008
85°	22906	2096	20810



TEST NUMBER: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.2	4.9
10°-20°	559.9	14.4
20°-30°	842.0	21.6
30°-40°	885.3	22.7
40°-50°	661.4	17.0
50°-60°	411.7	10.6
60°-70°	234.2	6.0
70°-80°	96.4	2.5
80°-90°	19.9	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°	1591.1	40.8
0°-40°	2476.4	63.5
0°-60°	3549.5	91.0
0°-90°	3900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3900.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1965	1965	1965	1965	1965	
5°	2001	1984	1970	1965	1970	192
15°	2015	1990	1982	1973	1987	566
25°	1834	1840	1868	1826	1809	840
35°	1406	1442	1462	1420	1378	873
45°	873	892	798	876	842	676
55°	525	514	295	506	520	472
65°	317	284	78	284	317	312
75°	133	106	17	103	125	145
85°	31	20	3	17	28	34
90°	0	0	0	0	0	



TEST NUMBER: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9
2.5°	1984.4	1981.6	1984.4	1978.8	1976.0	1976.0	1978.8	1973.2	1970.5	1973.2	1970.5
5°	2001.0	1995.5	1998.3	1995.5	1989.9	1989.9	1992.7	1984.4	1984.4	1987.1	1984.4
7.5°	2012.2	2012.2	2012.2	2006.6	2003.8	2001.0	2006.6	1998.3	1995.5	1995.5	1992.7
10°	2020.5	2017.7	2020.5	2014.9	2009.4	2006.6	2012.2	2006.6	2001.0	2006.6	1998.3
12.5°	2017.7	2017.7	2017.7	2014.9	2009.4	2006.6	2012.2	2003.8	2001.0	2003.8	1998.3
15°	2014.9	2006.6	2009.4	2006.6	1998.3	1998.3	2001.0	1992.7	1987.1	1995.5	1989.9
17.5°	1989.9	1984.4	1987.1	1981.6	1976.0	1973.2	1976.0	1973.2	1967.7	1973.2	1967.7
20°	1948.2	1948.2	1951.0	1945.4	1939.9	1937.1	1942.7	1937.1	1931.6	1939.9	1939.9
22.5°	1898.2	1898.2	1898.2	1895.4	1892.6	1892.6	1892.6	1889.9	1887.1	1892.6	1895.4
25°	1834.3	1831.5	1834.3	1837.1	1834.3	1831.5	1834.3	1834.3	1828.7	1839.8	1839.8
27.5°	1753.7	1753.7	1759.2	1756.5	1756.5	1753.7	1759.2	1759.2	1756.5	1764.8	1773.1
30°	1659.2	1653.6	1659.2	1659.2	1662.0	1662.0	1664.7	1664.7	1664.7	1673.1	1678.6
32.5°	1536.9	1539.7	1548.0	1545.2	1542.5	1550.8	1550.8	1556.4	1559.1	1564.7	1567.5
35°	1406.3	1409.1	1409.1	1411.8	1417.4	1411.8	1425.7	1423.0	1425.7	1436.9	1442.4
37.5°	1267.3	1259.0	1272.9	1267.3	1270.1	1270.1	1275.7	1278.4	1286.8	1300.7	1300.7
40°	1117.2	1120.0	1125.6	1128.4	1131.1	1131.1	1131.1	1139.5	1142.3	1158.9	1156.2
42.5°	986.6	986.6	992.2	995.0	995.0	995.0	995.0	1003.3	1008.9	1014.4	1020.0
45°	872.7	864.3	869.9	869.9	875.5	872.7	878.2	883.8	886.6	894.9	892.1
47.5°	764.3	761.5	764.3	767.1	764.3	767.1	769.8	772.6	775.4	775.4	775.4
50°	669.8	669.8	672.6	675.3	675.3	675.3	675.3	678.1	678.1	683.7	678.1
52.5°	592.0	594.8	594.8	592.0	594.8	594.8	597.5	597.5	594.8	594.8	586.4
55°	525.3	522.5	525.3	522.5	525.3	525.3	522.5	522.5	519.7	516.9	514.2
57.5°	461.3	461.3	461.3	461.3	458.6	461.3	458.6	455.8	455.8	450.2	441.9
60°	405.8	405.8	405.8	405.8	405.8	403.0	405.8	403.0	397.4	391.9	380.8
62.5°	358.5	355.7	358.5	355.7	355.7	353.0	353.0	350.2	344.6	339.1	327.9
65°	316.8	319.6	316.8	316.8	314.1	311.3	311.3	308.5	300.2	294.6	283.5
67.5°	272.4	269.6	269.6	269.6	266.8	266.8	266.8	261.2	255.7	247.3	236.2
70°	222.3	222.3	222.3	219.6	219.6	216.8	216.8	214.0	208.4	202.9	189.0
72.5°	175.1	175.1	175.1	169.5	172.3	169.5	169.5	164.0	161.2	152.9	144.5
75°	133.4	133.4	130.6	130.6	127.8	125.1	125.1	122.3	119.5	113.9	105.6
77.5°	97.3	97.3	97.3	94.5	91.7	88.9	88.9	86.2	83.4	80.6	75.0
80°	66.7	66.7	66.7	66.7	63.9	61.1	61.1	58.4	58.4	55.6	50.0
82.5°	44.5	44.5	44.5	44.5	41.7	41.7	41.7	38.9	36.1	36.1	30.6
85°	30.6	30.6	27.8	27.8	27.8	27.8	25.0	25.0	22.2	19.5	19.5
87.5°	16.7	16.7	16.7	16.7	13.9	13.9	13.9	13.9	11.1	11.1	8.3
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: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9
2.5°	1978.8	1978.8	1976.0	1967.7	1970.5	1967.7	1970.5	1967.7	1959.3	1967.7	1959.3
5°	1989.9	1992.7	1987.1	1976.0	1978.8	1976.0	1976.0	1973.2	1964.9	1970.5	1964.9
7.5°	2001.0	1998.3	1995.5	1984.4	1987.1	1984.4	1984.4	1978.8	1970.5	1976.0	1967.7
10°	2006.6	2006.6	2001.0	1989.9	1989.9	1987.1	1989.9	1987.1	1976.0	1984.4	1978.8
12.5°	2006.6	2003.8	2003.8	1989.9	1992.7	1989.9	1992.7	1987.1	1978.8	1984.4	1981.6
15°	1998.3	1998.3	1995.5	1981.6	1984.4	1984.4	1987.1	1981.6	1973.2	1981.6	1976.0
17.5°	1981.6	1981.6	1978.8	1967.7	1973.2	1973.2	1976.0	1970.5	1962.1	1967.7	1967.7
20°	1948.2	1951.0	1951.0	1942.7	1948.2	1948.2	1951.0	1948.2	1945.4	1948.2	1942.7
22.5°	1909.3	1914.9	1914.9	1906.5	1912.1	1912.1	1920.4	1917.7	1912.1	1914.9	1912.1
25°	1851.0	1856.5	1862.1	1856.5	1862.1	1862.1	1870.4	1867.6	1862.1	1867.6	1859.3
27.5°	1784.3	1787.0	1792.6	1787.0	1795.4	1792.6	1800.9	1798.2	1789.8	1798.2	1795.4
30°	1689.8	1700.9	1709.2	1700.9	1709.2	1709.2	1714.8	1712.0	1709.2	1706.4	1706.4
32.5°	1584.2	1595.3	1595.3	1592.5	1598.0	1598.0	1600.8	1595.3	1592.5	1595.3	1598.0
35°	1453.5	1459.1	1464.6	1461.9	1464.6	1467.4	1464.6	1467.4	1459.1	1461.9	1461.9
37.5°	1311.8	1317.3	1317.3	1309.0	1314.6	1314.6	1309.0	1309.0	1303.5	1309.0	1297.9
40°	1161.7	1156.2	1158.9	1153.4	1147.8	1147.8	1145.0	1133.9	1128.4	1131.1	1133.9
42.5°	1014.4	1014.4	1006.1	992.2	978.3	978.3	969.9	964.4	953.3	958.8	956.0
45°	889.3	875.5	864.3	842.1	833.8	828.2	814.3	800.4	794.9	797.6	794.9
47.5°	769.8	758.7	730.9	700.4	692.0	683.7	667.0	650.3	644.8	639.2	639.2
50°	669.8	650.3	619.8	586.4	572.5	558.6	536.4	519.7	508.6	511.4	511.4
52.5°	578.1	555.8	519.7	478.0	461.3	444.7	425.2	405.8	397.4	394.6	394.6
55°	497.5	472.5	436.3	389.1	375.2	355.7	330.7	308.5	297.4	294.6	300.2
57.5°	425.2	403.0	361.3	314.1	297.4	277.9	252.9	233.5	219.6	216.8	219.6
60°	366.9	336.3	300.2	255.7	233.5	216.8	189.0	172.3	158.4	152.9	155.6
62.5°	308.5	280.7	244.6	200.1	183.4	166.8	141.7	122.3	111.2	108.4	111.2
65°	264.0	236.2	202.9	164.0	147.3	130.6	108.4	88.9	80.6	77.8	80.6
67.5°	219.6	194.5	166.8	130.6	116.7	102.8	80.6	66.7	55.6	52.8	55.6
70°	177.9	155.6	127.8	102.8	88.9	77.8	61.1	47.2	38.9	36.1	38.9
72.5°	133.4	116.7	97.3	75.0	66.7	58.4	44.5	33.4	27.8	25.0	27.8
75°	97.3	83.4	69.5	52.8	47.2	41.7	30.6	22.2	19.5	16.7	19.5
77.5°	66.7	58.4	47.2	36.1	30.6	27.8	19.5	16.7	13.9	11.1	11.1
80°	44.5	38.9	30.6	25.0	22.2	19.5	13.9	11.1	8.3	8.3	8.3
82.5°	27.8	22.2	19.5	13.9	11.1	11.1	8.3	5.6	5.6	5.6	5.6
85°	16.7	13.9	11.1	8.3	5.6	5.6	2.8	2.8	2.8	2.8	2.8
87.5°	8.3	5.6	5.6	2.8	2.8	2.8	2.8	2.8	0.0	0.0	2.8
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: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9
2.5°	1964.9	1959.3	1959.3	1962.1	1964.9	1967.7	1962.1	1959.3	1959.3	1967.7	1962.1
5°	1964.9	1962.1	1962.1	1962.1	1967.7	1970.5	1964.9	1962.1	1964.9	1973.2	1970.5
7.5°	1973.2	1967.7	1970.5	1970.5	1973.2	1978.8	1973.2	1970.5	1973.2	1981.6	1976.0
10°	1978.8	1973.2	1976.0	1973.2	1981.6	1984.4	1978.8	1976.0	1978.8	1989.9	1987.1
12.5°	1981.6	1978.8	1978.8	1976.0	1984.4	1987.1	1981.6	1978.8	1981.6	1989.9	1987.1
15°	1976.0	1973.2	1973.2	1973.2	1978.8	1984.4	1976.0	1973.2	1973.2	1981.6	1978.8
17.5°	1964.9	1959.3	1959.3	1959.3	1962.1	1964.9	1956.6	1953.8	1951.0	1959.3	1956.6
20°	1945.4	1939.9	1934.3	1934.3	1937.1	1937.1	1931.6	1923.2	1923.2	1926.0	1920.4
22.5°	1909.3	1906.5	1901.0	1898.2	1903.8	1901.0	1889.9	1881.5	1878.7	1881.5	1876.0
25°	1859.3	1853.7	1851.0	1848.2	1851.0	1848.2	1837.1	1825.9	1825.9	1825.9	1817.6
27.5°	1789.8	1784.3	1781.5	1781.5	1784.3	1778.7	1767.6	1756.5	1750.9	1750.9	1742.6
30°	1700.9	1700.9	1698.1	1695.3	1692.5	1692.5	1675.9	1664.7	1659.2	1662.0	1656.4
32.5°	1592.5	1589.7	1586.9	1578.6	1581.4	1578.6	1564.7	1556.4	1548.0	1542.5	1539.7
35°	1453.5	1453.5	1450.7	1450.7	1450.7	1448.0	1434.1	1425.7	1420.2	1417.4	1409.1
37.5°	1300.7	1297.9	1295.1	1295.1	1295.1	1295.1	1286.8	1278.4	1278.4	1275.7	1270.1
40°	1128.4	1131.1	1133.9	1131.1	1139.5	1147.8	1136.7	1131.1	1128.4	1136.7	1125.6
42.5°	961.6	958.8	972.7	975.5	975.5	989.4	992.2	995.0	992.2	997.7	997.7
45°	800.4	797.6	811.5	817.1	831.0	847.7	856.0	869.9	875.5	881.0	875.5
47.5°	647.6	658.7	669.8	683.7	694.8	722.6	739.3	753.2	758.7	767.1	767.1
50°	519.7	530.8	550.3	561.4	575.3	608.6	636.4	655.9	667.0	675.3	672.6
52.5°	400.2	419.7	444.7	455.8	475.2	514.2	544.7	567.0	580.9	589.2	592.0
55°	308.5	325.2	350.2	366.9	386.3	428.0	466.9	491.9	505.8	516.9	522.5
57.5°	227.9	247.3	275.1	289.0	311.3	358.5	391.9	422.4	439.1	453.0	455.8
60°	166.8	186.2	211.2	227.9	250.1	297.4	336.3	364.1	383.5	394.6	400.2
62.5°	119.5	139.0	164.0	180.6	200.1	241.8	280.7	308.5	327.9	341.8	350.2
65°	86.2	105.6	130.6	144.5	161.2	200.1	236.2	264.0	283.5	300.2	305.7
67.5°	63.9	77.8	100.1	113.9	130.6	161.2	191.8	216.8	236.2	250.1	255.7
70°	47.2	58.4	77.8	86.2	97.3	125.1	150.1	172.3	189.0	200.1	205.7
72.5°	33.4	41.7	55.6	63.9	72.3	94.5	113.9	130.6	141.7	152.9	158.4
75°	22.2	27.8	38.9	44.5	50.0	66.7	80.6	94.5	102.8	111.2	113.9
77.5°	13.9	19.5	27.8	30.6	36.1	44.5	55.6	63.9	69.5	75.0	80.6
80°	8.3	11.1	16.7	19.5	22.2	30.6	36.1	41.7	47.2	52.8	55.6
82.5°	5.6	8.3	11.1	11.1	13.9	16.7	22.2	27.8	30.6	33.4	36.1
85°	2.8	2.8	5.6	5.6	8.3	8.3	11.1	13.9	16.7	19.5	22.2
87.5°	2.8	2.8	2.8	2.8	5.6	5.6	8.3	8.3	8.3	11.1	11.1
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: P252701

CATALOG NUMBER: LD6B40D010 EU6B30508030 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9	1964.9
2.5°	1956.6	1964.9	1956.6	1962.1	1959.3	1959.3	1956.6	1959.3
5°	1964.9	1976.0	1964.9	1973.2	1967.7	1967.7	1967.7	1970.5
7.5°	1973.2	1984.4	1976.0	1984.4	1981.6	1978.8	1978.8	1984.4
10°	1981.6	1989.9	1984.4	1992.7	1989.9	1987.1	1987.1	1992.7
12.5°	1981.6	1992.7	1987.1	1995.5	1992.7	1989.9	1989.9	1992.7
15°	1973.2	1987.1	1978.8	1987.1	1984.4	1981.6	1981.6	1987.1
17.5°	1948.2	1959.3	1953.8	1959.3	1959.3	1956.6	1959.3	1962.1
20°	1914.9	1923.2	1917.7	1923.2	1923.2	1917.7	1920.4	1923.2
22.5°	1867.6	1876.0	1870.4	1876.0	1873.2	1870.4	1870.4	1867.6
25°	1809.3	1820.4	1812.0	1817.6	1812.0	1806.5	1806.5	1809.3
27.5°	1737.0	1745.3	1734.2	1739.8	1734.2	1728.7	1728.7	1725.9
30°	1642.5	1645.3	1637.0	1642.5	1637.0	1634.2	1628.6	1628.6
32.5°	1528.6	1531.3	1523.0	1523.0	1517.5	1517.5	1506.3	1514.7
35°	1395.2	1397.9	1395.2	1392.4	1384.0	1381.3	1378.5	1378.5
37.5°	1256.2	1256.2	1247.9	1245.1	1239.5	1234.0	1236.7	1228.4
40°	1114.5	1111.7	1103.3	1106.1	1103.3	1095.0	1092.2	1089.5
42.5°	981.1	981.1	972.7	975.5	969.9	967.2	958.8	961.6
45°	864.3	864.3	856.0	856.0	853.2	844.9	847.7	842.1
47.5°	758.7	758.7	755.9	755.9	747.6	744.8	744.8	744.8
50°	667.0	667.0	667.0	667.0	664.2	661.5	658.7	661.5
52.5°	589.2	594.8	592.0	592.0	589.2	586.4	583.6	583.6
55°	519.7	522.5	522.5	525.3	522.5	519.7	522.5	519.7
57.5°	458.6	464.1	464.1	464.1	464.1	464.1	461.3	458.6
60°	405.8	408.5	408.5	411.3	411.3	411.3	408.5	408.5
62.5°	353.0	358.5	361.3	361.3	364.1	361.3	361.3	361.3
65°	311.3	316.8	319.6	316.8	319.6	319.6	316.8	316.8
67.5°	261.2	266.8	266.8	266.8	266.8	269.6	266.8	266.8
70°	211.2	216.8	214.0	216.8	216.8	216.8	216.8	216.8
72.5°	161.2	164.0	166.8	166.8	169.5	166.8	166.8	166.8
75°	116.7	122.3	122.3	122.3	122.3	125.1	125.1	125.1
77.5°	83.4	86.2	86.2	88.9	88.9	88.9	88.9	91.7
80°	58.4	58.4	61.1	61.1	63.9	63.9	63.9	63.9
82.5°	38.9	41.7	41.7	41.7	41.7	41.7	41.7	41.7
85°	22.2	25.0	25.0	25.0	25.0	27.8	27.8	27.8
87.5°	13.9	13.9	13.9	13.9	13.9	13.9	11.1	11.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)