

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: PORTFOLIO

Report Number: P252158

Luminaire Tested: **LE_6B20D010 EC6B10208050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B20D010 EC6B10208050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3357.5 lumens
Efficiency: N/A
Efficacy: 161.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

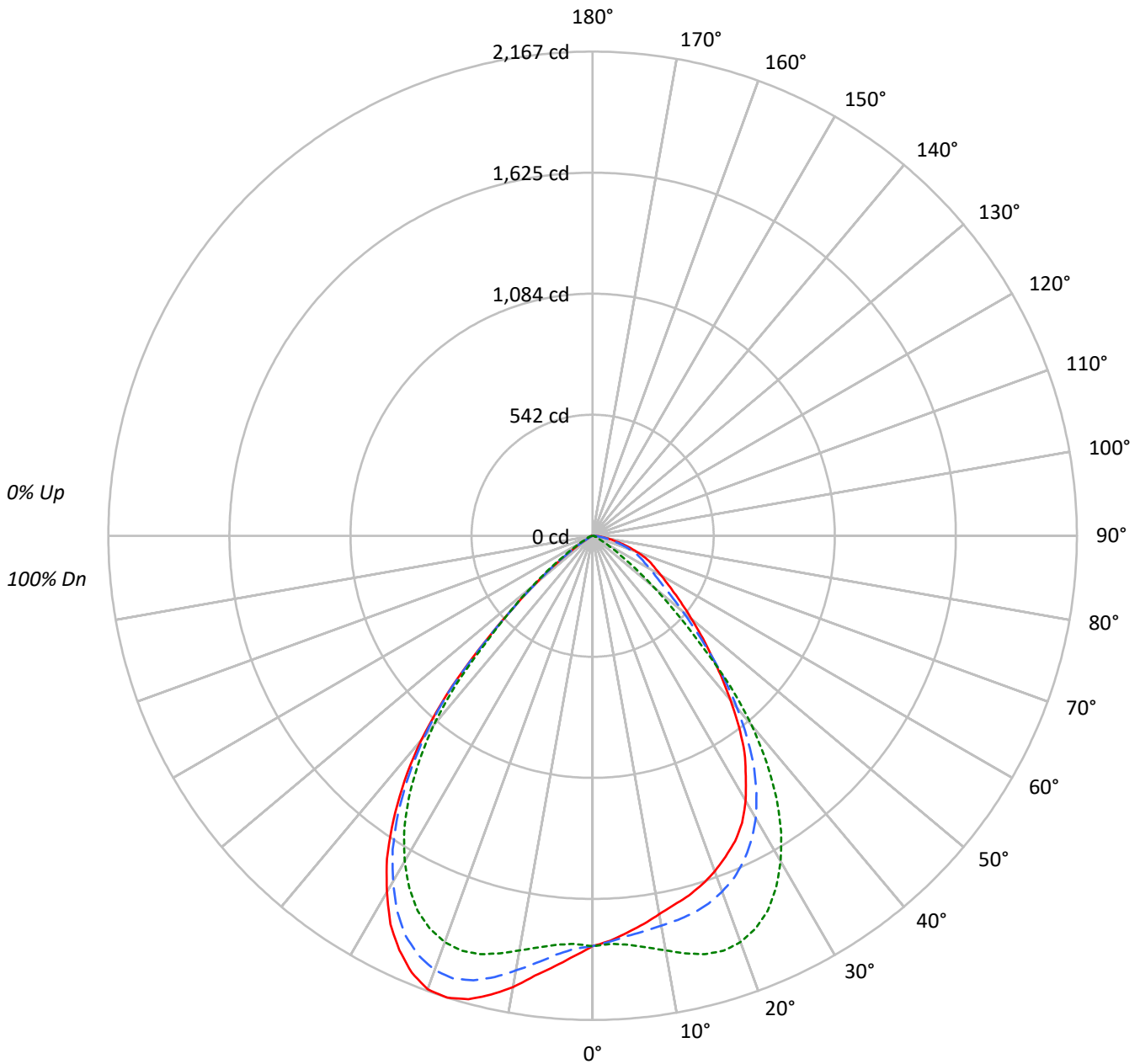
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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				100
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	119841	119841	119841
5°	116729	120298	126618
10°	113885	124823	135873
15°	112559	130937	145053
20°	110945	134349	149957
25°	108589	133360	147267
30°	103192	126726	138644
35°	94410	114257	123775
40°	81657	94363	101551
45°	68866	61891	66430
50°	58462	35828	33687
55°	50730	17175	12978
60°	45825	8025	3210
65°	44459	4616	1081
70°	39867	3701	992
75°	32769	2647	454
80°	24421	1315	0
85°	21034	0	0



TEST NUMBER: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.4	5.3
10°-20°	540.7	16.1
20°-30°	826.2	24.6
30°-40°	864.1	25.7
40°-50°	560.5	16.7
50°-60°	222.6	6.6
60°-70°	105.6	3.1
70°-80°	50.2	1.5
80°-90°	10.2	0.3
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°	1544.3	46.0
0°-40°	2408.4	71.7
0°-60°	3191.5	95.1
0°-90°	3357.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3357.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1837	1837	1837	1837	1837	
5°	1782	1798	1837	1882	1933	168
15°	1666	1747	1939	2060	2148	470
25°	1508	1603	1853	1977	2046	691
35°	1185	1257	1435	1519	1554	733
45°	746	739	671	711	720	581
55°	446	379	151	118	114	404
65°	288	239	30	7	7	281
75°	130	105	10	4	2	140
85°	28	18	0	0	0	33
90°	0	0	0	0	0	



TEST NUMBER: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9
2.5°	1814.0	1817.5	1798.1	1792.9	1807.0	1812.2	1814.0	1808.8	1810.5	1817.5	1817.5
5°	1782.4	1785.9	1768.4	1763.1	1777.1	1780.6	1785.9	1784.1	1789.4	1800.0	1798.1
7.5°	1752.5	1757.8	1738.5	1731.5	1749.0	1757.8	1761.2	1761.2	1768.4	1782.4	1784.1
10°	1719.1	1726.1	1708.6	1705.1	1724.4	1733.2	1735.0	1738.5	1749.0	1768.4	1771.9
12.5°	1691.1	1698.1	1685.8	1680.5	1701.6	1710.4	1713.9	1720.9	1733.2	1757.8	1761.2
15°	1666.5	1671.8	1657.8	1654.2	1675.2	1685.8	1687.5	1698.1	1713.9	1742.0	1747.2
17.5°	1634.9	1638.4	1627.9	1624.4	1645.4	1656.0	1657.8	1670.0	1689.2	1717.4	1726.1
20°	1598.0	1601.5	1591.0	1587.5	1608.5	1620.9	1622.6	1633.1	1656.0	1685.8	1694.6
22.5°	1554.1	1561.1	1548.9	1545.4	1566.4	1576.9	1582.2	1591.0	1613.8	1643.6	1656.0
25°	1508.5	1508.5	1499.6	1497.9	1517.2	1529.5	1527.8	1540.0	1562.9	1592.8	1603.2
27.5°	1448.8	1447.0	1438.2	1436.5	1457.5	1468.0	1464.5	1476.9	1497.9	1527.8	1538.2
30°	1369.8	1373.2	1360.9	1357.4	1375.0	1392.5	1390.8	1403.1	1424.1	1452.2	1459.2
32.5°	1274.9	1278.4	1276.6	1271.4	1287.1	1296.0	1301.2	1310.0	1327.6	1357.4	1364.5
35°	1185.4	1180.0	1173.0	1173.0	1188.9	1202.9	1197.6	1208.1	1225.8	1255.6	1257.4
37.5°	1074.8	1073.0	1069.4	1065.9	1083.5	1087.0	1088.8	1095.8	1111.6	1136.1	1132.6
40°	958.8	960.5	958.8	951.8	962.2	976.4	974.6	978.1	992.1	1009.8	1004.5
42.5°	849.9	849.9	849.9	842.9	855.2	862.2	865.8	864.0	867.5	883.2	876.2
45°	746.4	748.1	746.4	744.5	746.4	749.9	746.4	744.5	744.5	749.9	739.2
47.5°	656.8	656.8	651.5	646.2	651.5	653.2	648.0	642.8	641.0	639.2	621.6
50°	576.0	574.2	572.5	563.8	569.0	570.8	563.8	560.1	553.1	544.4	523.2
52.5°	505.8	504.0	502.2	493.5	497.0	498.8	491.8	484.6	475.9	468.9	442.5
55°	446.0	444.2	444.2	439.0	435.5	439.0	432.0	426.8	414.4	405.6	379.2
57.5°	395.1	395.1	391.6	386.4	388.1	388.1	381.0	374.0	363.5	353.0	331.9
60°	351.2	351.2	351.2	346.0	346.0	346.0	342.4	335.4	326.6	316.1	295.0
62.5°	316.1	316.1	314.4	309.1	310.9	310.9	307.2	300.2	291.5	284.5	263.4
65°	288.0	288.0	288.0	282.8	282.8	284.5	281.0	274.0	266.9	258.1	238.9
67.5°	252.9	251.1	251.1	247.6	249.4	251.1	247.6	242.4	233.5	228.2	210.8
70°	209.0	210.8	212.5	207.2	209.0	209.0	207.2	202.0	196.6	191.4	175.6
72.5°	170.4	170.4	168.6	166.9	166.9	168.6	165.1	159.8	156.2	152.8	140.5
75°	130.0	128.2	130.0	126.4	126.4	126.4	122.9	121.1	119.4	114.1	105.4
77.5°	94.9	93.1	93.1	89.5	91.4	91.4	89.5	86.0	82.5	80.8	73.8
80°	65.0	65.0	65.0	63.2	63.2	61.5	61.5	59.8	56.2	54.4	50.9
82.5°	43.9	43.9	43.9	42.1	42.1	42.1	40.4	38.6	36.9	35.1	31.6
85°	28.1	28.1	28.1	26.4	26.4	26.4	24.6	24.6	22.9	21.1	17.5
87.5°	15.8	15.8	15.8	14.0	14.0	14.0	14.0	14.0	12.2	10.5	8.8
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: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9
2.5°	1829.8	1805.2	1821.0	1821.0	1815.8	1829.8	1838.6	1845.6	1843.9	1828.0	1826.2
5°	1815.8	1794.6	1812.2	1814.0	1808.8	1828.0	1840.4	1849.1	1850.9	1836.9	1838.6
7.5°	1805.2	1787.6	1810.5	1817.5	1815.8	1833.2	1847.4	1861.4	1868.4	1857.9	1859.6
10°	1800.0	1785.9	1810.5	1821.0	1822.8	1842.1	1863.1	1882.5	1891.2	1884.2	1889.5
12.5°	1792.9	1784.1	1812.2	1828.0	1835.0	1854.4	1880.8	1903.5	1917.6	1914.1	1924.6
15°	1785.9	1778.9	1812.2	1835.0	1843.9	1861.4	1891.2	1924.6	1940.4	1938.6	1952.8
17.5°	1768.4	1766.6	1801.8	1826.2	1838.6	1859.6	1887.8	1928.1	1943.9	1947.5	1965.0
20°	1740.2	1740.2	1778.9	1805.2	1819.2	1838.6	1873.8	1912.4	1931.6	1935.1	1954.5
22.5°	1701.6	1705.1	1742.0	1768.4	1789.4	1803.5	1840.4	1880.8	1898.2	1903.5	1924.6
25°	1650.6	1654.2	1689.2	1715.6	1738.5	1754.2	1789.4	1826.2	1847.4	1852.6	1868.4
27.5°	1584.0	1591.0	1624.4	1650.6	1670.0	1680.5	1717.4	1756.0	1771.9	1777.1	1792.9
30°	1506.6	1508.5	1541.8	1564.6	1584.0	1592.8	1624.4	1664.8	1677.0	1682.2	1705.1
32.5°	1411.9	1410.1	1441.8	1462.8	1478.6	1489.1	1522.5	1548.9	1561.1	1569.9	1582.2
35°	1297.8	1296.0	1318.8	1343.4	1355.6	1359.1	1392.5	1420.6	1427.6	1434.6	1450.5
37.5°	1169.5	1169.5	1188.9	1201.1	1215.1	1220.5	1236.2	1267.9	1280.1	1278.4	1290.8
40°	1034.2	1027.2	1041.4	1053.6	1057.1	1058.9	1074.8	1099.2	1108.0	1108.0	1116.9
42.5°	892.1	881.5	883.2	890.2	893.9	881.5	892.1	907.9	902.6	909.6	911.4
45°	741.0	725.2	718.2	702.4	705.9	693.6	686.6	690.1	688.4	670.8	674.4
47.5°	618.1	590.0	577.8	554.9	549.6	535.6	526.8	511.0	497.0	497.0	488.1
50°	514.5	486.4	461.9	435.5	426.8	414.4	395.1	374.0	363.5	353.0	344.1
52.5°	432.0	402.1	372.2	344.1	331.9	316.1	289.8	268.6	249.4	238.9	228.2
55°	365.2	331.9	300.2	270.4	254.6	238.9	212.5	187.9	165.1	151.0	142.2
57.5°	314.4	282.8	249.4	217.8	203.8	186.1	158.0	131.8	110.6	94.9	86.0
60°	277.5	245.9	216.0	182.6	168.6	151.0	121.1	96.6	75.5	61.5	50.9
62.5°	245.9	217.8	186.1	156.2	142.2	124.6	96.6	72.0	52.6	38.6	29.9
65°	223.0	194.9	168.6	138.8	126.4	108.9	82.5	59.8	42.1	29.9	21.1
67.5°	196.6	172.1	145.8	121.1	108.9	94.9	70.2	50.9	35.1	24.6	17.5
70°	165.1	145.8	122.9	100.1	91.4	79.0	58.0	42.1	28.1	19.4	14.0
72.5°	131.8	115.9	98.4	80.8	73.8	61.5	47.4	33.4	21.1	14.0	10.5
75°	100.1	87.8	73.8	61.5	54.4	47.4	35.1	24.6	15.8	10.5	7.0
77.5°	68.5	63.2	52.6	42.1	38.6	33.4	22.9	15.8	10.5	7.0	3.5
80°	47.4	42.1	35.1	28.1	24.6	21.1	14.0	10.5	5.2	3.5	1.8
82.5°	29.9	24.6	21.1	17.5	15.8	12.2	8.8	5.2	3.5	1.8	1.8
85°	15.8	14.0	12.2	8.8	8.8	7.0	5.2	3.5	1.8	0.0	0.0
87.5°	8.8	7.0	5.2	3.5	3.5	1.8	1.8	1.8	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



TEST NUMBER: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9
2.5°	1847.4	1847.4	1845.6	1866.6	1842.1	1866.6	1854.4	1866.6	1849.1	1847.4	1849.1
5°	1861.4	1866.6	1868.4	1887.8	1864.9	1894.8	1884.2	1894.8	1882.5	1886.0	1891.2
7.5°	1889.5	1898.2	1896.5	1921.1	1898.2	1931.6	1924.6	1940.4	1928.1	1931.6	1938.6
10°	1921.1	1931.6	1933.4	1958.0	1936.9	1977.2	1968.5	1986.1	1975.5	1980.9	1989.6
12.5°	1958.0	1970.2	1972.0	2000.1	1977.2	2019.5	2014.1	2031.8	2023.0	2028.2	2038.8
15°	1986.1	2003.6	2007.1	2035.2	2010.6	2054.6	2051.0	2073.9	2059.9	2068.6	2077.4
17.5°	2000.1	2015.9	2023.0	2049.2	2028.2	2072.1	2068.6	2087.9	2077.4	2086.1	2096.8
20°	1991.4	2010.6	2015.9	2042.2	2021.2	2065.1	2059.9	2079.1	2068.6	2075.6	2086.1
22.5°	1959.8	1979.0	1986.1	2010.6	1991.4	2031.8	2030.0	2047.5	2033.5	2042.2	2051.0
25°	1903.5	1924.6	1928.1	1951.0	1929.9	1972.0	1968.5	1987.9	1977.2	1982.6	1994.9
27.5°	1822.8	1847.4	1852.6	1872.0	1856.1	1891.2	1891.2	1907.0	1894.8	1894.8	1907.0
30°	1726.1	1750.8	1754.2	1770.1	1756.0	1787.6	1789.4	1805.2	1785.9	1796.4	1798.1
32.5°	1608.5	1624.4	1634.9	1648.9	1627.9	1668.2	1663.0	1675.2	1664.8	1664.8	1673.5
35°	1466.2	1485.6	1490.9	1508.5	1490.9	1522.5	1522.5	1529.5	1519.0	1519.0	1533.0
37.5°	1311.8	1325.8	1327.6	1345.1	1331.1	1357.4	1355.6	1360.9	1350.4	1357.4	1357.4
40°	1130.9	1141.4	1145.0	1153.8	1152.0	1171.2	1169.5	1173.0	1167.8	1169.5	1173.0
42.5°	920.1	934.2	941.2	948.2	937.8	964.1	958.8	964.1	962.2	964.1	969.4
45°	677.9	688.4	693.6	695.4	691.9	707.6	720.0	709.5	711.2	707.6	714.8
47.5°	489.9	491.8	488.1	498.8	489.9	497.0	500.5	502.2	491.8	489.9	497.0
50°	335.4	344.1	331.9	337.1	335.4	342.4	338.9	340.6	330.1	335.4	331.9
52.5°	223.0	221.2	217.8	219.5	216.0	216.0	216.0	219.5	212.5	209.0	205.5
55°	135.2	131.8	124.6	122.9	122.9	124.6	121.1	117.6	117.6	115.9	115.9
57.5°	79.0	73.8	70.2	68.5	65.0	63.2	61.5	61.5	58.0	58.0	58.0
60°	43.9	38.6	35.1	31.6	31.6	29.9	28.1	26.4	26.4	26.4	24.6
62.5°	22.9	19.4	15.8	14.0	14.0	12.2	10.5	10.5	10.5	10.5	8.8
65°	15.8	12.2	10.5	8.8	8.8	7.0	7.0	7.0	7.0	7.0	7.0
67.5°	12.2	10.5	8.8	7.0	7.0	7.0	5.2	5.2	5.2	5.2	5.2
70°	10.5	7.0	7.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
72.5°	7.0	7.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
75°	5.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
77.5°	1.8	1.8	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0
80°	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	0.0	0.0	0.0	0.0	0.0	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



TEST NUMBER: P252158

CATALOG NUMBER: LE_6B20D010 EC6B10208050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9	1836.9
2.5°	1864.9	1863.1	1864.9	1868.4	1861.4	1882.5	1872.0	1882.5
5°	1905.2	1907.0	1908.9	1914.1	1905.2	1931.6	1917.6	1933.4
7.5°	1958.0	1959.8	1961.5	1966.8	1961.5	1987.9	1972.0	1986.1
10°	2012.4	2015.9	2015.9	2024.8	2019.5	2044.0	2033.5	2051.0
12.5°	2063.4	2066.9	2070.4	2075.6	2072.1	2098.5	2089.6	2103.8
15°	2103.8	2110.8	2112.5	2119.5	2116.0	2144.1	2133.6	2147.6
17.5°	2123.0	2130.1	2130.1	2138.9	2135.4	2165.2	2151.1	2167.0
20°	2112.5	2117.8	2119.5	2128.4	2124.8	2154.6	2140.6	2159.9
22.5°	2079.1	2080.9	2082.6	2091.5	2089.6	2116.0	2103.8	2116.0
25°	2017.8	2023.0	2021.2	2028.2	2028.2	2049.2	2035.2	2045.8
27.5°	1929.9	1935.1	1935.1	1943.9	1936.9	1958.0	1943.9	1959.8
30°	1822.8	1828.0	1824.5	1831.5	1824.5	1845.6	1835.0	1840.4
32.5°	1694.6	1694.6	1696.4	1698.1	1694.6	1713.9	1703.4	1713.9
35°	1541.8	1545.4	1547.1	1548.9	1545.4	1559.4	1547.1	1554.1
37.5°	1369.8	1378.5	1376.8	1378.5	1373.2	1390.8	1380.2	1383.8
40°	1185.4	1185.4	1183.6	1187.1	1181.9	1195.9	1188.9	1192.4
42.5°	971.1	976.4	969.4	978.1	964.1	983.4	976.4	971.1
45°	728.8	721.8	720.0	721.8	716.5	718.2	723.5	720.0
47.5°	497.0	497.0	493.5	488.1	495.2	497.0	489.9	489.9
50°	333.6	333.6	330.1	328.4	331.9	330.1	326.6	331.9
52.5°	212.5	205.5	205.5	209.0	205.5	202.0	207.2	203.8
55°	115.9	112.4	112.4	115.9	112.4	112.4	110.6	114.1
57.5°	56.2	58.0	56.2	56.2	56.2	56.2	54.4	56.2
60°	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
62.5°	10.5	10.5	8.8	8.8	8.8	8.8	8.8	8.8
65°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
67.5°	5.2	5.2	5.2	5.2	5.2	7.0	5.2	5.2
70°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
72.5°	5.2	5.2	7.0	7.0	7.0	7.0	7.0	7.0
75°	3.5	3.5	3.5	1.8	1.8	1.8	1.8	1.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	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



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)