

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: P252156

Luminaire Tested: **LE_6B20D010 EC6B10208035 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252156
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 EC6B10208035 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3323.8 lumens
Efficiency: N/A
Efficacy: 159.8 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

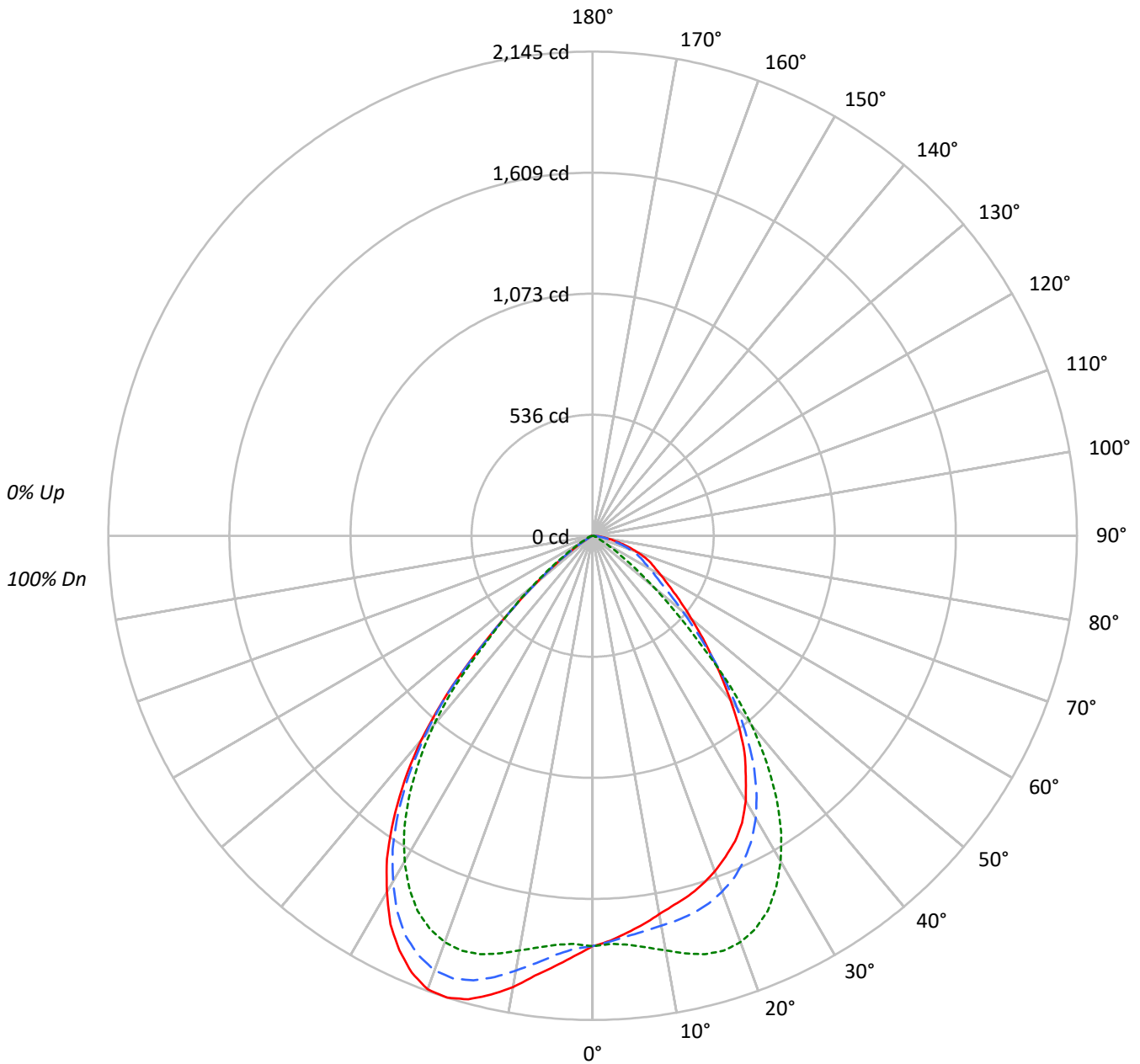
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			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°	118634	118634	118634
5°	115557	119087	125348
10°	112746	123564	134508
15°	111431	129620	143594
20°	109828	133009	148450
25°	107488	132021	145784
30°	102152	125460	137250
35°	93454	113111	122532
40°	80831	93418	100529
45°	68174	61273	65766
50°	57873	35463	33342
55°	50218	17005	12853
60°	45355	7946	3184
65°	44012	4554	1081
70°	39466	3643	992
75°	32416	2622	454
80°	24195	1315	0
85°	20885	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.6	5.3
10°-20°	535.3	16.1
20°-30°	817.9	24.6
30°-40°	855.4	25.7
40°-50°	554.9	16.7
50°-60°	220.3	6.6
60°-70°	104.5	3.1
70°-80°	49.7	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°	1528.8	46.0
0°-40°	2384.2	71.7
0°-60°	3159.4	95.1
0°-90°	3323.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3323.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1818	1818	1818	1818	1818	
5°	1764	1780	1818	1864	1914	167
15°	1650	1730	1919	2039	2126	465
25°	1493	1587	1834	1957	2025	684
35°	1173	1245	1420	1504	1538	726
45°	739	732	664	704	713	575
55°	442	376	150	116	113	400
65°	285	236	30	7	7	278
75°	129	104	10	4	2	139
85°	28	17	0	0	0	32
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°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1795.8	1799.2	1780.1	1774.9	1788.8	1794.0	1795.8	1790.5	1792.2	1799.2	1799.2
5°	1764.5	1768.0	1750.5	1745.4	1759.2	1762.8	1768.0	1766.2	1771.4	1781.9	1780.1
7.5°	1734.9	1740.1	1721.0	1714.0	1731.4	1740.1	1743.6	1743.6	1750.5	1764.5	1766.2
10°	1701.9	1708.9	1691.5	1688.0	1707.1	1715.8	1717.5	1721.0	1731.4	1750.5	1754.0
12.5°	1674.1	1681.0	1668.9	1663.6	1684.5	1693.2	1696.6	1703.6	1715.8	1740.1	1743.6
15°	1649.8	1655.0	1641.0	1637.5	1658.4	1668.9	1670.6	1681.0	1696.6	1724.5	1729.8
17.5°	1618.5	1621.9	1611.5	1608.0	1628.9	1639.2	1641.0	1653.2	1672.4	1700.1	1708.9
20°	1581.9	1585.4	1575.0	1571.5	1592.4	1604.5	1606.2	1616.8	1639.2	1668.9	1677.5
22.5°	1538.5	1545.4	1533.2	1529.8	1550.6	1561.1	1566.2	1575.0	1597.6	1627.1	1639.2
25°	1493.2	1493.2	1484.6	1482.9	1502.0	1514.1	1512.4	1524.6	1547.1	1576.8	1587.1
27.5°	1434.1	1432.4	1423.8	1422.0	1442.9	1453.2	1449.9	1462.0	1482.9	1512.4	1522.9
30°	1356.0	1359.4	1347.2	1343.8	1361.1	1378.5	1376.8	1389.0	1409.9	1437.6	1444.6
32.5°	1262.1	1265.5	1263.8	1258.6	1274.2	1282.9	1288.1	1296.9	1314.2	1343.8	1350.8
35°	1173.4	1168.2	1161.2	1161.2	1176.9	1190.8	1185.6	1196.0	1213.4	1243.0	1244.6
37.5°	1063.9	1062.1	1058.6	1055.2	1072.6	1076.0	1077.8	1084.8	1100.4	1124.8	1121.2
40°	949.1	950.9	949.1	942.2	952.6	966.5	964.8	968.2	982.2	999.6	994.4
42.5°	841.4	841.4	841.4	834.4	846.6	853.5	857.0	855.2	858.8	874.4	867.5
45°	738.9	740.5	738.9	737.1	738.9	742.2	738.9	737.1	737.1	742.2	731.9
47.5°	650.1	650.1	645.0	639.8	645.0	646.6	641.5	636.2	634.5	632.8	615.4
50°	570.2	568.5	566.8	558.0	563.2	565.0	558.0	554.5	547.6	538.9	518.0
52.5°	500.6	498.9	497.1	488.5	492.0	493.8	486.8	479.8	471.1	464.1	438.1
55°	441.5	439.8	439.8	434.6	431.1	434.6	427.6	422.4	410.2	401.6	375.5
57.5°	391.1	391.1	387.6	382.5	384.1	384.1	377.2	370.2	359.9	349.4	328.5
60°	347.6	347.6	347.6	342.5	342.5	342.5	339.0	332.0	323.4	312.9	292.0
62.5°	312.9	312.9	311.1	306.0	307.8	307.8	304.2	297.2	288.6	281.6	260.8
65°	285.1	285.1	285.1	279.9	279.9	281.6	278.1	271.2	264.2	255.5	236.4
67.5°	250.4	248.6	248.6	245.1	246.9	248.6	245.1	239.9	231.2	226.0	208.6
70°	206.9	208.6	210.4	205.1	206.9	206.9	205.1	199.9	194.8	189.5	173.9
72.5°	168.6	168.6	166.9	165.1	165.1	166.9	163.4	158.2	154.8	151.2	139.1
75°	128.6	126.9	128.6	125.1	125.1	125.1	121.6	120.0	118.2	113.0	104.2
77.5°	93.9	92.1	92.1	88.6	90.4	90.4	88.6	85.1	81.8	80.0	73.0
80°	64.4	64.4	64.4	62.6	62.6	60.9	60.9	59.1	55.6	53.9	50.4
82.5°	43.5	43.5	43.5	41.8	41.8	41.8	40.0	38.2	36.5	34.8	31.2
85°	27.9	27.9	27.9	26.1	26.1	26.1	24.4	24.4	22.6	20.9	17.4
87.5°	15.6	15.6	15.6	13.9	13.9	13.9	13.9	13.9	12.1	10.4	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1811.4	1787.1	1802.8	1802.8	1797.5	1811.4	1820.1	1827.0	1825.2	1809.6	1807.9
5°	1797.5	1776.6	1794.0	1795.8	1790.5	1809.6	1821.9	1830.5	1832.2	1818.4	1820.1
7.5°	1787.1	1769.6	1792.2	1799.2	1797.5	1814.9	1828.8	1842.8	1849.6	1839.2	1841.0
10°	1781.9	1768.0	1792.2	1802.8	1804.5	1823.6	1844.4	1863.5	1872.2	1865.2	1870.5
12.5°	1774.9	1766.2	1794.0	1809.6	1816.6	1835.8	1861.9	1884.4	1898.4	1894.9	1905.2
15°	1768.0	1761.0	1794.0	1816.6	1825.2	1842.8	1872.2	1905.2	1920.9	1919.1	1933.1
17.5°	1750.5	1748.9	1783.6	1807.9	1820.1	1841.0	1868.8	1908.8	1924.4	1927.9	1945.2
20°	1722.8	1722.8	1761.0	1787.1	1801.0	1820.1	1854.9	1893.1	1912.2	1915.8	1934.9
22.5°	1684.5	1688.0	1724.5	1750.5	1771.4	1785.4	1821.9	1861.9	1879.2	1884.4	1905.2
25°	1634.1	1637.5	1672.4	1698.4	1721.0	1736.6	1771.4	1807.9	1828.8	1834.0	1849.6
27.5°	1568.0	1575.0	1608.0	1634.1	1653.2	1663.6	1700.1	1738.4	1754.0	1759.2	1774.9
30°	1491.5	1493.2	1526.2	1548.9	1568.0	1576.8	1608.0	1648.0	1660.1	1665.4	1688.0
32.5°	1397.6	1395.9	1427.2	1448.1	1463.8	1474.1	1507.1	1533.2	1545.4	1554.1	1566.2
35°	1284.6	1282.9	1305.5	1329.9	1342.0	1345.5	1378.5	1406.4	1413.2	1420.2	1435.9
37.5°	1157.8	1157.8	1176.9	1189.0	1203.0	1208.1	1223.9	1255.1	1267.2	1265.5	1277.8
40°	1023.9	1017.0	1030.9	1043.0	1046.5	1048.2	1063.9	1088.2	1096.9	1096.9	1105.6
42.5°	883.1	872.6	874.4	881.4	884.9	872.6	883.1	898.8	893.5	900.5	902.2
45°	733.6	718.0	711.0	695.4	698.9	686.6	679.8	683.1	681.5	664.1	667.5
47.5°	611.9	584.1	571.9	549.4	544.1	530.2	521.5	505.9	492.0	492.0	483.2
50°	509.4	481.5	457.2	431.1	422.4	410.2	391.1	370.2	359.9	349.4	340.8
52.5°	427.6	398.1	368.5	340.8	328.5	312.9	286.9	266.0	246.9	236.4	226.0
55°	361.6	328.5	297.2	267.8	252.1	236.4	210.4	186.0	163.4	149.5	140.8
57.5°	311.1	279.9	246.9	215.5	201.6	184.2	156.5	130.4	109.5	93.9	85.1
60°	274.6	243.4	213.9	180.8	166.9	149.5	120.0	95.6	74.8	60.9	50.4
62.5°	243.4	215.5	184.2	154.8	140.8	123.4	95.6	71.2	52.1	38.2	29.5
65°	220.8	193.0	166.9	137.4	125.1	107.8	81.8	59.1	41.8	29.5	20.9
67.5°	194.8	170.4	144.2	120.0	107.8	93.9	69.5	50.4	34.8	24.4	17.4
70°	163.4	144.2	121.6	99.1	90.4	78.2	57.4	41.8	27.9	19.1	13.9
72.5°	130.4	114.8	97.4	80.0	73.0	60.9	46.9	33.0	20.9	13.9	10.4
75°	99.1	86.9	73.0	60.9	53.9	46.9	34.8	24.4	15.6	10.4	7.0
77.5°	67.8	62.6	52.1	41.8	38.2	33.0	22.6	15.6	10.4	7.0	3.5
80°	46.9	41.8	34.8	27.9	24.4	20.9	13.9	10.4	5.2	3.5	1.8
82.5°	29.5	24.4	20.9	17.4	15.6	12.1	8.8	5.2	3.5	1.8	1.8
85°	15.6	13.9	12.1	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1828.8	1828.8	1827.0	1847.9	1823.6	1847.9	1835.8	1847.9	1830.5	1828.8	1830.5
5°	1842.8	1847.9	1849.6	1868.8	1846.1	1875.8	1865.2	1875.8	1863.5	1867.0	1872.2
7.5°	1870.5	1879.2	1877.5	1901.8	1879.2	1912.2	1905.2	1920.9	1908.8	1912.2	1919.1
10°	1901.8	1912.2	1914.0	1938.2	1917.5	1957.4	1948.8	1966.1	1955.6	1960.9	1969.6
12.5°	1938.2	1950.5	1952.2	1980.0	1957.4	1999.1	1993.9	2011.4	2002.6	2007.9	2018.2
15°	1966.1	1983.5	1987.0	2014.8	1990.5	2033.9	2030.4	2053.0	2039.1	2047.9	2056.5
17.5°	1980.0	1995.6	2002.6	2028.8	2007.9	2051.2	2047.9	2067.0	2056.5	2065.2	2075.6
20°	1971.4	1990.5	1995.6	2021.8	2000.9	2044.4	2039.1	2058.2	2047.9	2054.8	2065.2
22.5°	1940.0	1959.1	1966.1	1990.5	1971.4	2011.4	2009.6	2027.0	2013.0	2021.8	2030.4
25°	1884.4	1905.2	1908.8	1931.4	1910.5	1952.2	1948.8	1967.9	1957.4	1962.6	1974.8
27.5°	1804.5	1828.8	1834.0	1853.1	1837.5	1872.2	1872.2	1887.9	1875.8	1875.8	1887.9
30°	1708.9	1733.1	1736.6	1752.2	1738.4	1769.6	1771.4	1787.1	1768.0	1778.4	1780.1
32.5°	1592.4	1608.0	1618.5	1632.4	1611.5	1651.5	1646.2	1658.4	1648.0	1648.0	1656.6
35°	1451.5	1470.6	1475.9	1493.2	1475.9	1507.1	1507.1	1514.1	1503.8	1503.8	1517.6
37.5°	1298.6	1312.5	1314.2	1331.6	1317.8	1343.8	1342.0	1347.2	1336.9	1343.8	1343.8
40°	1119.5	1130.0	1133.4	1142.1	1140.4	1159.5	1157.8	1161.2	1156.0	1157.8	1161.2
42.5°	910.9	924.9	931.8	938.8	928.2	954.4	949.1	954.4	952.6	954.4	959.6
45°	671.0	681.5	686.6	688.4	684.9	700.6	712.8	702.2	704.0	700.6	707.5
47.5°	485.0	486.8	483.2	493.8	485.0	492.0	495.5	497.1	486.8	485.0	492.0
50°	332.0	340.8	328.5	333.8	332.0	339.0	335.5	337.2	326.9	332.0	328.5
52.5°	220.8	219.0	215.5	217.2	213.9	213.9	213.9	217.2	210.4	206.9	203.4
55°	133.9	130.4	123.4	121.6	121.6	123.4	120.0	116.5	116.5	114.8	114.8
57.5°	78.2	73.0	69.5	67.8	64.4	62.6	60.9	60.9	57.4	57.4	57.4
60°	43.5	38.2	34.8	31.2	31.2	29.5	27.9	26.1	26.1	26.1	24.4
62.5°	22.6	19.1	15.6	13.9	13.9	12.1	10.4	10.4	10.4	10.4	8.8
65°	15.6	12.1	10.4	8.8	8.8	7.0	7.0	7.0	7.0	7.0	7.0
67.5°	12.1	10.4	8.8	7.0	7.0	7.0	5.2	5.2	5.2	5.2	5.2
70°	10.4	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: P252156

CATALOG NUMBER: LE_6B20D010 EC6B10208035 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1846.1	1844.4	1846.1	1849.6	1842.8	1863.5	1853.1	1863.5
5°	1886.1	1887.9	1889.6	1894.9	1886.1	1912.2	1898.4	1914.0
7.5°	1938.2	1940.0	1941.8	1947.0	1941.8	1967.9	1952.2	1966.1
10°	1992.2	1995.6	1995.6	2004.4	1999.1	2023.5	2013.0	2030.4
12.5°	2042.6	2046.1	2049.5	2054.8	2051.2	2077.4	2068.6	2082.6
15°	2082.6	2089.5	2091.2	2098.2	2094.8	2122.6	2112.1	2126.0
17.5°	2101.8	2108.6	2108.6	2117.4	2113.9	2143.4	2129.5	2145.1
20°	2091.2	2096.5	2098.2	2106.9	2103.5	2133.0	2119.1	2138.2
22.5°	2058.2	2060.0	2061.8	2070.4	2068.6	2094.8	2082.6	2094.8
25°	1997.4	2002.6	2000.9	2007.9	2007.9	2028.8	2014.8	2025.2
27.5°	1910.5	1915.8	1915.8	1924.4	1917.5	1938.2	1924.4	1940.0
30°	1804.5	1809.6	1806.1	1813.1	1806.1	1827.0	1816.6	1821.9
32.5°	1677.5	1677.5	1679.2	1681.0	1677.5	1696.6	1686.2	1696.6
35°	1526.2	1529.8	1531.5	1533.2	1529.8	1543.8	1531.5	1538.5
37.5°	1356.0	1364.6	1362.9	1364.6	1359.4	1376.8	1366.4	1369.9
40°	1173.4	1173.4	1171.6	1175.1	1169.9	1183.9	1176.9	1180.4
42.5°	961.4	966.5	959.6	968.2	954.4	973.5	966.5	961.4
45°	721.4	714.5	712.8	714.5	709.2	711.0	716.2	712.8
47.5°	492.0	492.0	488.5	483.2	490.2	492.0	485.0	485.0
50°	330.2	330.2	326.9	325.1	328.5	326.9	323.4	328.5
52.5°	210.4	203.4	203.4	206.9	203.4	199.9	205.1	201.6
55°	114.8	111.2	111.2	114.8	111.2	111.2	109.5	113.0
57.5°	55.6	57.4	55.6	55.6	55.6	55.6	53.9	55.6
60°	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
62.5°	10.4	10.4	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



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













(END OF REPORT)