

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: P252155

Luminaire Tested: **LE_6B20D010 EC6B10208030 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252155
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 EC6B10208030 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3242.5 lumens
Efficiency: N/A
Efficacy: 155.9 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

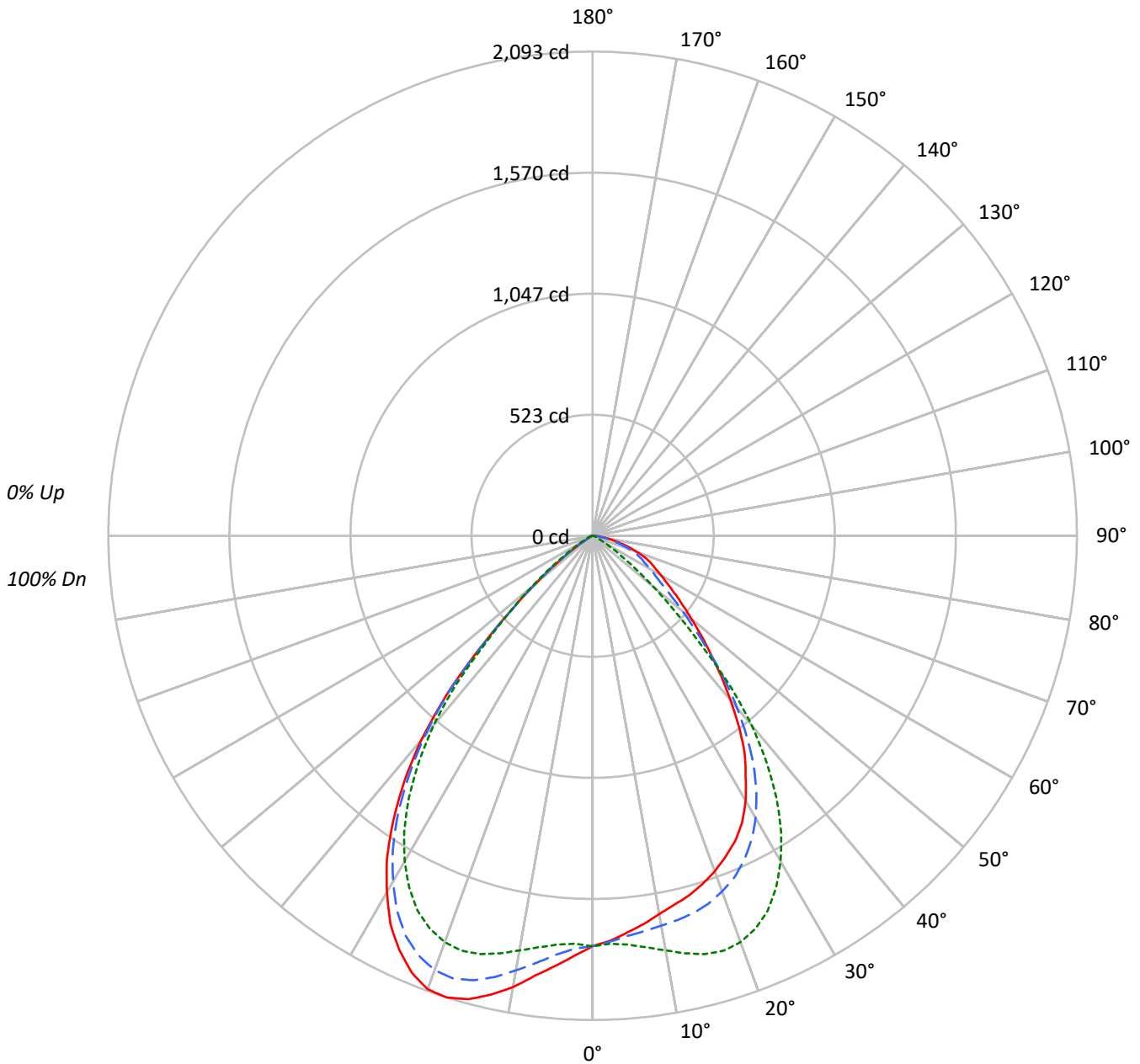
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	115730	115730	115730
5°	112734	116172	122276
10°	109983	120556	131222
15°	108702	126452	140089
20°	107141	129753	144826
25°	104868	128788	142228
30°	99651	122387	133882
35°	91177	110347	119538
40°	78863	91136	98068
45°	66504	59778	64161
50°	56452	34600	32530
55°	49001	16595	12535
60°	44246	7751	3105
65°	42931	4461	1050
70°	38494	3548	973
75°	31635	2546	454
80°	23594	1277	0
85°	20286	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.3	5.3
10°-20°	522.2	16.1
20°-30°	797.9	24.6
30°-40°	834.5	25.7
40°-50°	541.3	16.7
50°-60°	214.9	6.6
60°-70°	102.0	3.1
70°-80°	48.5	1.5
80°-90°	9.9	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°	1491.4	46.0
0°-40°	2325.9	71.7
0°-60°	3082.2	95.1
0°-90°	3242.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3242.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1774	1774	1774	1774	1774	
5°	1721	1737	1774	1818	1867	163
15°	1609	1687	1872	1989	2074	454
25°	1457	1548	1789	1910	1976	667
35°	1145	1214	1386	1467	1501	708
45°	721	714	648	687	695	561
55°	431	366	146	114	110	390
65°	278	231	29	7	7	272
75°	126	102	10	3	2	135
85°	27	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°	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9
2.5°	1751.9	1755.2	1736.6	1731.5	1745.1	1750.1	1751.9	1746.8	1748.5	1755.2	1755.2
5°	1721.4	1724.8	1707.8	1702.6	1716.2	1719.6	1724.8	1723.0	1728.1	1738.2	1736.6
7.5°	1692.5	1697.6	1678.9	1672.1	1689.1	1697.6	1701.0	1701.0	1707.8	1721.4	1723.0
10°	1660.2	1667.0	1650.1	1646.8	1665.4	1673.9	1675.5	1678.9	1689.1	1707.8	1711.1
12.5°	1633.1	1639.9	1628.0	1623.0	1643.4	1651.8	1655.2	1662.0	1673.9	1697.6	1701.0
15°	1609.4	1614.5	1600.9	1597.5	1617.9	1628.0	1629.8	1639.9	1655.2	1682.4	1687.4
17.5°	1578.9	1582.2	1572.1	1568.8	1589.0	1599.2	1600.9	1612.8	1631.5	1658.6	1667.0
20°	1543.2	1546.6	1536.5	1533.1	1553.4	1565.2	1567.0	1577.1	1599.2	1628.0	1636.5
22.5°	1500.9	1507.6	1495.8	1492.4	1512.8	1522.9	1528.0	1536.5	1558.5	1587.4	1599.2
25°	1456.8	1456.8	1448.2	1446.6	1465.2	1477.1	1475.4	1487.2	1509.4	1538.1	1548.4
27.5°	1399.1	1397.4	1388.9	1387.2	1407.6	1417.8	1414.4	1426.2	1446.6	1475.4	1485.6
30°	1322.8	1326.2	1314.4	1310.9	1327.9	1344.9	1343.1	1355.0	1375.4	1402.5	1409.2
32.5°	1231.2	1234.6	1232.9	1227.9	1243.1	1251.6	1256.6	1265.1	1282.1	1310.9	1317.8
35°	1144.8	1139.6	1132.9	1132.9	1148.1	1161.6	1156.6	1166.8	1183.8	1212.6	1214.2
37.5°	1037.9	1036.2	1032.8	1029.4	1046.4	1049.8	1051.5	1058.2	1073.5	1097.2	1093.9
40°	926.0	927.6	926.0	919.1	929.4	942.9	941.2	944.6	958.1	975.1	970.0
42.5°	820.8	820.8	820.8	814.0	825.9	832.6	836.1	834.4	837.8	853.0	846.2
45°	720.8	722.5	720.8	719.0	720.8	724.1	720.8	719.0	719.0	724.1	714.0
47.5°	634.2	634.2	629.1	624.1	629.1	630.9	625.8	620.8	619.0	617.2	600.4
50°	556.2	554.5	552.9	544.4	549.5	551.1	544.4	541.0	534.2	525.8	505.4
52.5°	488.4	486.8	485.0	476.5	480.0	481.6	474.9	468.1	459.6	452.8	427.4
55°	430.8	429.0	429.0	424.0	420.6	424.0	417.2	412.1	400.2	391.8	366.4
57.5°	381.6	381.6	378.1	373.1	374.8	374.8	368.0	361.2	351.0	340.9	320.5
60°	339.1	339.1	339.1	334.1	334.1	334.1	330.8	323.9	315.4	305.2	284.9
62.5°	305.2	305.2	303.6	298.5	300.1	300.1	296.8	290.0	281.5	274.8	254.4
65°	278.1	278.1	278.1	273.0	273.0	274.8	271.4	264.5	257.8	249.2	230.6
67.5°	244.2	242.5	242.5	239.1	240.9	242.5	239.1	234.0	225.5	220.5	203.5
70°	201.8	203.5	205.2	200.1	201.8	201.8	200.1	195.0	190.0	184.9	169.6
72.5°	164.5	164.5	162.8	161.1	161.1	162.8	159.4	154.4	150.9	147.5	135.6
75°	125.5	123.8	125.5	122.1	122.1	122.1	118.8	117.0	115.4	110.2	101.8
77.5°	91.6	89.9	89.9	86.5	88.1	88.1	86.5	83.1	79.8	78.0	71.2
80°	62.8	62.8	62.8	61.0	61.0	59.4	59.4	57.6	54.2	52.6	49.1
82.5°	42.4	42.4	42.4	40.8	40.8	40.8	39.0	37.2	35.6	33.9	30.5
85°	27.1	27.1	27.1	25.5	25.5	25.5	23.8	23.8	22.0	20.4	17.0
87.5°	15.2	15.2	15.2	13.6	13.6	13.6	13.6	13.6	11.9	10.1	8.5
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°	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9
2.5°	1767.1	1743.4	1758.6	1758.6	1753.5	1767.1	1775.6	1782.4	1780.6	1765.4	1763.8
5°	1753.5	1733.2	1750.1	1751.9	1746.8	1765.4	1777.2	1785.8	1787.5	1773.9	1775.6
7.5°	1743.4	1726.4	1748.5	1755.2	1753.5	1770.5	1784.1	1797.6	1804.4	1794.2	1796.0
10°	1738.2	1724.8	1748.5	1758.6	1760.4	1779.0	1799.4	1818.0	1826.5	1819.8	1824.8
12.5°	1731.5	1723.0	1750.1	1765.4	1772.2	1790.9	1816.2	1838.4	1851.9	1848.5	1858.8
15°	1724.8	1718.0	1750.1	1772.2	1780.6	1797.6	1826.5	1858.8	1874.0	1872.2	1885.9
17.5°	1707.8	1706.1	1740.0	1763.8	1775.6	1796.0	1823.1	1862.1	1877.4	1880.8	1897.8
20°	1680.6	1680.6	1718.0	1743.4	1757.0	1775.6	1809.5	1846.9	1865.5	1868.9	1887.5
22.5°	1643.4	1646.8	1682.4	1707.8	1728.1	1741.6	1777.2	1816.2	1833.2	1838.4	1858.8
25°	1594.1	1597.5	1631.5	1656.9	1678.9	1694.2	1728.1	1763.8	1784.1	1789.1	1804.4
27.5°	1529.8	1536.5	1568.8	1594.1	1612.8	1623.0	1658.6	1695.9	1711.1	1716.2	1731.5
30°	1455.1	1456.8	1489.0	1511.0	1529.8	1538.1	1568.8	1607.8	1619.6	1624.6	1646.8
32.5°	1363.5	1361.8	1392.4	1412.6	1428.0	1438.1	1470.4	1495.8	1507.6	1516.1	1528.0
35°	1253.2	1251.6	1273.6	1297.4	1309.2	1312.6	1344.9	1372.0	1378.8	1385.5	1400.8
37.5°	1129.5	1129.5	1148.1	1160.0	1173.5	1178.6	1193.9	1224.4	1236.2	1234.6	1246.5
40°	998.9	992.1	1005.6	1017.5	1020.9	1022.6	1037.9	1061.6	1070.1	1070.1	1078.6
42.5°	861.5	851.4	853.0	859.9	863.2	851.4	861.5	876.8	871.8	878.5	880.1
45°	715.6	700.4	693.6	678.4	681.8	669.9	663.1	666.5	664.8	647.9	651.2
47.5°	597.0	569.9	558.0	535.9	530.9	517.2	508.8	493.5	480.0	480.0	471.5
50°	496.9	469.8	446.0	420.6	412.1	400.2	381.6	361.2	351.0	340.9	332.4
52.5°	417.2	388.4	359.5	332.4	320.5	305.2	279.9	259.5	240.9	230.6	220.5
55°	352.8	320.5	290.0	261.1	245.9	230.6	205.2	181.5	159.4	145.9	137.4
57.5°	303.6	273.0	240.9	210.2	196.8	179.8	152.6	127.2	106.9	91.6	83.1
60°	268.0	237.4	208.6	176.4	162.8	145.9	117.0	93.2	72.9	59.4	49.1
62.5°	237.4	210.2	179.8	150.9	137.4	120.4	93.2	69.5	50.9	37.2	28.9
65°	215.4	188.2	162.8	134.0	122.1	105.1	79.8	57.6	40.8	28.9	20.4
67.5°	190.0	166.2	140.8	117.0	105.1	91.6	67.9	49.1	33.9	23.8	17.0
70°	159.4	140.8	118.8	96.6	88.1	76.4	56.0	40.8	27.1	18.6	13.6
72.5°	127.2	111.9	95.0	78.0	71.2	59.4	45.8	32.2	20.4	13.6	10.1
75°	96.6	84.8	71.2	59.4	52.6	45.8	33.9	23.8	15.2	10.1	6.8
77.5°	66.1	61.0	50.9	40.8	37.2	32.2	22.0	15.2	10.1	6.8	3.4
80°	45.8	40.8	33.9	27.1	23.8	20.4	13.6	10.1	5.1	3.4	1.8
82.5°	28.9	23.8	20.4	17.0	15.2	11.9	8.5	5.1	3.4	1.8	1.8
85°	15.2	13.6	11.9	8.5	8.5	6.8	5.1	3.4	1.8	0.0	0.0
87.5°	8.5	6.8	5.1	3.4	3.4	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°	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9
2.5°	1784.1	1784.1	1782.4	1802.8	1779.0	1802.8	1790.9	1802.8	1785.8	1784.1	1785.8
5°	1797.6	1802.8	1804.4	1823.1	1801.0	1829.9	1819.8	1829.9	1818.0	1821.4	1826.5
7.5°	1824.8	1833.2	1831.6	1855.2	1833.2	1865.5	1858.8	1874.0	1862.1	1865.5	1872.2
10°	1855.2	1865.5	1867.1	1890.9	1870.6	1909.6	1901.1	1918.0	1907.9	1913.0	1921.5
12.5°	1890.9	1902.8	1904.5	1931.6	1909.6	1950.2	1945.2	1962.1	1953.6	1958.8	1968.9
15°	1918.0	1935.0	1938.4	1965.5	1941.8	1984.2	1980.8	2002.9	1989.2	1997.8	2006.2
17.5°	1931.6	1946.9	1953.6	1979.1	1958.8	2001.1	1997.8	2016.4	2006.2	2014.8	2024.9
20°	1923.1	1941.8	1946.9	1972.4	1952.0	1994.4	1989.2	2007.9	1997.8	2004.5	2014.8
22.5°	1892.6	1911.2	1918.0	1941.8	1923.1	1962.1	1960.5	1977.4	1963.9	1972.4	1980.8
25°	1838.4	1858.8	1862.1	1884.1	1863.8	1904.5	1901.1	1919.8	1909.6	1914.6	1926.5
27.5°	1760.4	1784.1	1789.1	1807.9	1792.5	1826.5	1826.5	1841.8	1829.9	1829.9	1841.8
30°	1667.0	1690.8	1694.2	1709.5	1695.9	1726.4	1728.1	1743.4	1724.8	1734.9	1736.6
32.5°	1553.4	1568.8	1578.9	1592.5	1572.1	1611.1	1606.0	1617.9	1607.8	1607.8	1616.1
35°	1416.1	1434.8	1439.9	1456.8	1439.9	1470.4	1470.4	1477.1	1467.0	1467.0	1480.5
37.5°	1266.9	1280.4	1282.1	1299.0	1285.5	1310.9	1309.2	1314.4	1304.1	1310.9	1310.9
40°	1092.1	1102.4	1105.8	1114.2	1112.5	1131.1	1129.5	1132.9	1127.8	1129.5	1132.9
42.5°	888.6	902.2	909.0	915.8	905.6	931.0	926.0	931.0	929.4	931.0	936.1
45°	654.6	664.8	669.9	671.6	668.1	683.5	695.4	685.1	686.9	683.5	690.2
47.5°	473.1	474.9	471.5	481.6	473.1	480.0	483.4	485.0	474.9	473.1	480.0
50°	323.9	332.4	320.5	325.6	323.9	330.8	327.2	329.0	318.9	323.9	320.5
52.5°	215.4	213.6	210.2	212.0	208.6	208.6	208.6	212.0	205.2	201.8	198.4
55°	130.6	127.2	120.4	118.8	118.8	120.4	117.0	113.6	113.6	111.9	111.9
57.5°	76.4	71.2	67.9	66.1	62.8	61.0	59.4	59.4	56.0	56.0	56.0
60°	42.4	37.2	33.9	30.5	30.5	28.9	27.1	25.5	25.5	25.5	23.8
62.5°	22.0	18.6	15.2	13.6	13.6	11.9	10.1	10.1	10.1	10.1	8.5
65°	15.2	11.9	10.1	8.5	8.5	6.8	6.8	6.8	6.8	6.8	6.8
67.5°	11.9	10.1	8.5	6.8	6.8	6.8	5.1	5.1	5.1	5.1	5.1
70°	10.1	6.8	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	6.8	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
75°	5.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
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: P252155

CATALOG NUMBER: LE_6B20D010 EC6B10208030 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9	1773.9
2.5°	1801.0	1799.4	1801.0	1804.4	1797.6	1818.0	1807.9	1818.0
5°	1840.0	1841.8	1843.4	1848.5	1840.0	1865.5	1851.9	1867.1
7.5°	1890.9	1892.6	1894.2	1899.4	1894.2	1919.8	1904.5	1918.0
10°	1943.5	1946.9	1946.9	1955.4	1950.2	1974.0	1963.9	1980.8
12.5°	1992.6	1996.1	1999.5	2004.5	2001.1	2026.6	2018.1	2031.6
15°	2031.6	2038.5	2040.1	2047.0	2043.5	2070.6	2060.5	2074.1
17.5°	2050.4	2057.1	2057.1	2065.6	2062.2	2091.0	2077.5	2092.8
20°	2040.1	2045.2	2047.0	2055.4	2052.0	2080.9	2067.2	2086.0
22.5°	2007.9	2009.6	2011.4	2019.8	2018.1	2043.5	2031.6	2043.5
25°	1948.6	1953.6	1952.0	1958.8	1958.8	1979.1	1965.5	1975.8
27.5°	1863.8	1868.9	1868.9	1877.4	1870.6	1890.9	1877.4	1892.6
30°	1760.4	1765.4	1762.0	1768.9	1762.0	1782.4	1772.2	1777.2
32.5°	1636.5	1636.5	1638.2	1639.9	1636.5	1655.2	1645.0	1655.2
35°	1489.0	1492.4	1494.1	1495.8	1492.4	1506.0	1494.1	1500.9
37.5°	1322.8	1331.2	1329.6	1331.2	1326.2	1343.1	1333.0	1336.4
40°	1144.8	1144.8	1143.0	1146.4	1141.4	1154.9	1148.1	1151.5
42.5°	937.9	942.9	936.1	944.6	931.0	949.8	942.9	937.9
45°	703.8	697.0	695.4	697.0	691.9	693.6	698.8	695.4
47.5°	480.0	480.0	476.5	471.5	478.2	480.0	473.1	473.1
50°	322.2	322.2	318.9	317.1	320.5	318.9	315.4	320.5
52.5°	205.2	198.4	198.4	201.8	198.4	195.0	200.1	196.8
55°	111.9	108.5	108.5	111.9	108.5	108.5	106.9	110.2
57.5°	54.2	56.0	54.2	54.2	54.2	54.2	52.6	54.2
60°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
62.5°	10.1	10.1	8.5	8.5	8.5	8.5	8.5	8.5
65°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
67.5°	5.1	5.1	5.1	5.1	5.1	6.8	5.1	5.1
70°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	5.1	5.1	6.8	6.8	6.8	6.8	6.8	6.8
75°	3.4	3.4	3.4	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)