

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: P252157

Luminaire Tested: **LE_6B20D010 EC6B10208040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252157
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 EC6B10208040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3358.7 lumens
Efficiency: N/A
Efficacy: 161.5 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

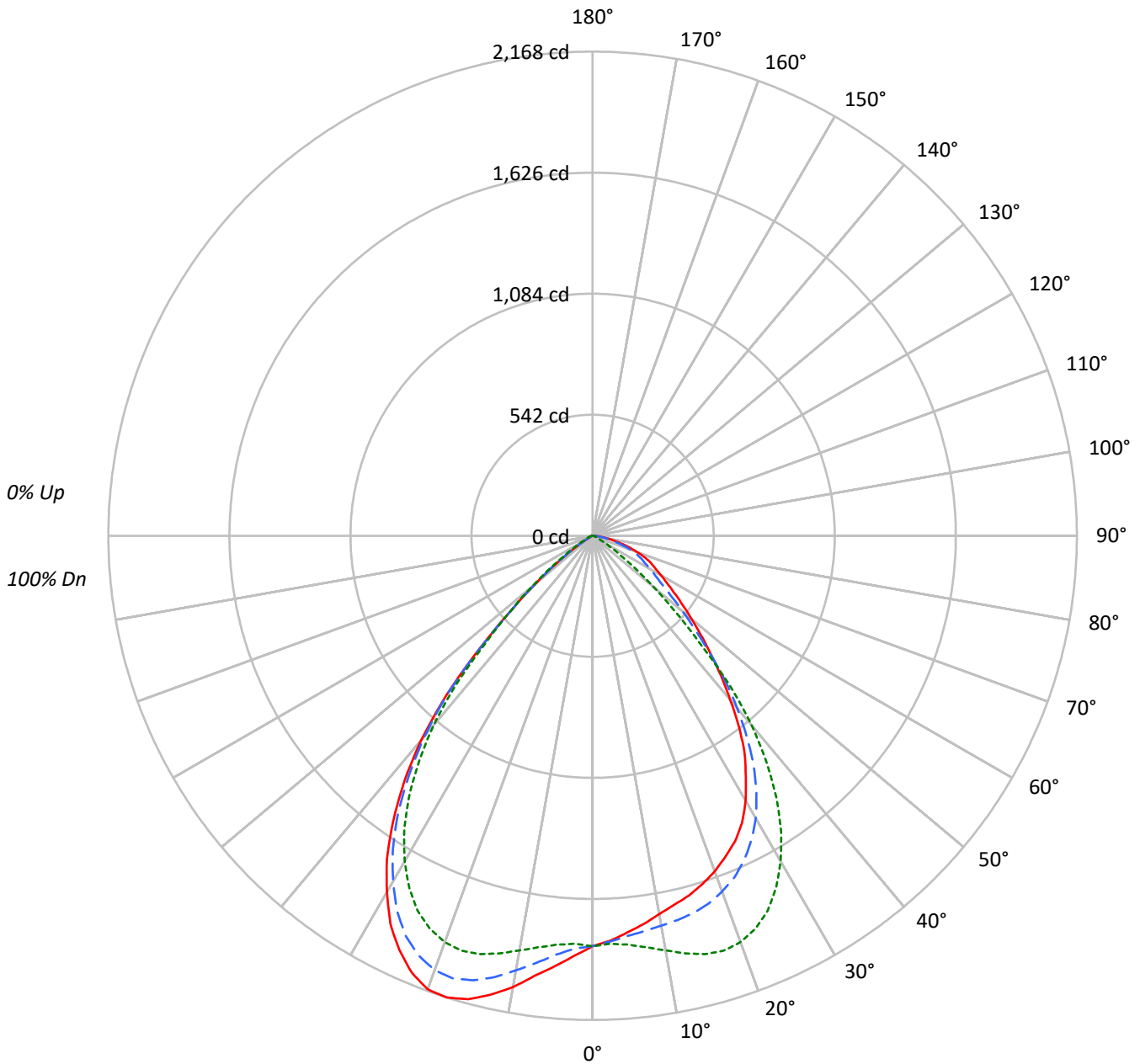
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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°	119880	119880	119880
5°	116768	120338	126664
10°	113932	124869	135932
15°	112599	130991	145107
20°	110987	134405	150019
25°	108625	133403	147317
30°	103222	126779	138689
35°	94442	114305	123815
40°	81682	94406	101586
45°	68884	61909	66449
50°	58482	35838	33697
55°	50752	17187	12978
60°	45851	8025	3210
65°	44475	4616	1081
70°	39867	3701	992
75°	32769	2647	454
80°	24421	1315	0
85°	21034	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.5	5.3
10°-20°	540.9	16.1
20°-30°	826.5	24.6
30°-40°	864.4	25.7
40°-50°	560.7	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°	1544.9	46.0
0°-40°	2409.3	71.7
0°-60°	3192.7	95.1
0°-90°	3358.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3358.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1838	1838	1838	1838	1838	
5°	1783	1799	1838	1883	1934	168
15°	1667	1748	1939	2061	2148	470
25°	1509	1604	1853	1978	2046	691
35°	1186	1258	1435	1520	1555	733
45°	747	740	671	712	720	581
55°	446	380	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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5
2.5°	1814.6	1818.1	1798.9	1793.6	1807.6	1812.9	1814.6	1809.4	1811.1	1818.1	1818.1
5°	1783.0	1786.5	1769.0	1763.8	1777.8	1781.2	1786.5	1784.8	1790.1	1800.6	1798.9
7.5°	1753.1	1758.5	1739.1	1732.1	1749.6	1758.5	1762.0	1762.0	1769.0	1783.0	1784.8
10°	1719.8	1726.9	1709.2	1705.8	1725.1	1733.9	1735.6	1739.1	1749.6	1769.0	1772.5
12.5°	1691.8	1698.8	1686.4	1681.1	1702.2	1711.0	1714.5	1721.5	1733.9	1758.5	1762.0
15°	1667.1	1672.4	1658.4	1654.8	1675.9	1686.4	1688.1	1698.8	1714.5	1742.6	1747.9
17.5°	1635.5	1639.0	1628.5	1625.0	1646.0	1656.5	1658.4	1670.6	1690.0	1718.0	1726.9
20°	1598.6	1602.1	1591.6	1588.0	1609.1	1621.4	1623.1	1633.8	1656.5	1686.4	1695.2
22.5°	1554.6	1561.8	1549.4	1545.9	1567.0	1577.5	1582.8	1591.6	1614.4	1644.2	1656.5
25°	1509.0	1509.0	1500.2	1498.5	1517.8	1530.1	1528.4	1540.6	1563.5	1593.4	1603.9
27.5°	1449.2	1447.5	1438.8	1437.0	1458.0	1468.6	1465.1	1477.4	1498.5	1528.4	1538.9
30°	1370.2	1373.8	1361.4	1357.9	1375.5	1393.0	1391.2	1403.6	1424.6	1452.8	1459.8
32.5°	1275.4	1278.9	1277.1	1271.9	1287.6	1296.5	1301.8	1310.5	1328.0	1357.9	1365.0
35°	1185.8	1180.5	1173.5	1173.5	1189.2	1203.4	1198.1	1208.6	1226.1	1256.0	1257.8
37.5°	1075.1	1073.4	1069.9	1066.4	1083.9	1087.4	1089.1	1096.1	1112.0	1136.6	1133.1
40°	959.1	960.9	959.1	952.1	962.6	976.8	975.0	978.5	992.5	1010.1	1004.9
42.5°	850.2	850.2	850.2	843.2	855.5	862.5	866.0	864.2	867.8	883.6	876.6
45°	746.6	748.4	746.6	744.9	746.6	750.1	746.6	744.9	744.9	750.1	739.6
47.5°	657.0	657.0	651.8	646.5	651.8	653.5	648.2	643.0	641.2	639.4	621.9
50°	576.2	574.5	572.6	563.9	569.1	570.9	563.9	560.4	553.4	544.6	523.5
52.5°	505.9	504.1	502.4	493.6	497.1	498.9	491.9	484.9	476.1	469.0	442.6
55°	446.2	444.5	444.5	439.1	435.6	439.1	432.1	426.9	414.6	405.8	379.5
57.5°	395.2	395.2	391.8	386.5	388.2	388.2	381.2	374.1	363.6	353.1	332.0
60°	351.4	351.4	351.4	346.1	346.1	346.1	342.5	335.5	326.8	316.2	295.1
62.5°	316.2	316.2	314.5	309.1	310.9	310.9	307.4	300.4	291.6	284.6	263.5
65°	288.1	288.1	288.1	282.9	282.9	284.6	281.1	274.0	267.0	258.2	238.9
67.5°	253.0	251.2	251.2	247.8	249.5	251.2	247.8	242.4	233.6	228.4	210.8
70°	209.0	210.8	212.5	207.2	209.0	209.0	207.2	202.0	196.8	191.5	175.6
72.5°	170.4	170.4	168.6	166.9	166.9	168.6	165.1	159.9	156.4	152.9	140.5
75°	130.0	128.2	130.0	126.5	126.5	126.5	123.0	121.2	119.5	114.1	105.4
77.5°	94.9	93.1	93.1	89.6	91.4	91.4	89.6	86.1	82.6	80.8	73.8
80°	65.0	65.0	65.0	63.2	63.2	61.5	61.5	59.8	56.2	54.5	51.0
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	17.6
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5
2.5°	1830.5	1805.9	1821.8	1821.8	1816.4	1830.5	1839.2	1846.2	1844.5	1828.8	1827.0
5°	1816.4	1795.4	1812.9	1814.6	1809.4	1828.8	1841.0	1849.8	1851.5	1837.5	1839.2
7.5°	1805.9	1788.4	1811.1	1818.1	1816.4	1834.0	1848.0	1862.1	1869.1	1858.6	1860.4
10°	1800.6	1786.5	1811.1	1821.8	1823.5	1842.8	1863.9	1883.1	1892.0	1884.9	1890.2
12.5°	1793.6	1784.8	1812.9	1828.8	1835.8	1855.1	1881.4	1904.2	1918.2	1914.8	1925.4
15°	1786.5	1779.5	1812.9	1835.8	1844.5	1862.1	1892.0	1925.4	1941.1	1939.4	1953.5
17.5°	1769.0	1767.2	1802.4	1827.0	1839.2	1860.4	1888.5	1928.9	1944.6	1948.1	1965.8
20°	1740.9	1740.9	1779.5	1805.9	1819.9	1839.2	1874.4	1913.0	1932.4	1935.9	1955.2
22.5°	1702.2	1705.8	1742.6	1769.0	1790.1	1804.1	1841.0	1881.4	1899.0	1904.2	1925.4
25°	1651.2	1654.8	1690.0	1716.2	1739.1	1754.9	1790.1	1827.0	1848.0	1853.2	1869.1
27.5°	1584.5	1591.6	1625.0	1651.2	1670.6	1681.1	1718.0	1756.8	1772.5	1777.8	1793.6
30°	1507.2	1509.0	1542.4	1565.2	1584.5	1593.4	1625.0	1665.4	1677.6	1682.9	1705.8
32.5°	1412.4	1410.6	1442.2	1463.4	1479.1	1489.6	1523.0	1549.4	1561.8	1570.5	1582.8
35°	1298.2	1296.5	1319.2	1343.9	1356.1	1359.6	1393.0	1421.1	1428.2	1435.2	1451.0
37.5°	1170.0	1170.0	1189.2	1201.6	1215.6	1220.9	1236.8	1268.4	1280.6	1278.9	1291.1
40°	1034.8	1027.6	1041.8	1054.0	1057.5	1059.2	1075.1	1099.8	1108.5	1108.5	1117.2
42.5°	892.4	881.9	883.6	890.6	894.1	881.9	892.4	908.2	903.0	910.0	911.8
45°	741.4	725.5	718.5	702.6	706.2	693.9	686.9	690.4	688.6	671.0	674.6
47.5°	618.4	590.2	578.0	555.1	549.9	535.8	527.0	511.2	497.1	497.1	488.4
50°	514.8	486.6	462.0	435.6	426.9	414.6	395.2	374.1	363.6	353.1	344.2
52.5°	432.1	402.2	372.4	344.2	332.0	316.2	289.9	268.8	249.5	238.9	228.4
55°	365.4	332.0	300.4	270.5	254.8	238.9	212.5	188.0	165.1	151.1	142.2
57.5°	314.5	282.9	249.5	217.9	203.8	186.2	158.1	131.8	110.6	94.9	86.1
60°	277.5	245.9	216.1	182.8	168.6	151.1	121.2	96.6	75.5	61.5	51.0
62.5°	245.9	217.9	186.2	156.4	142.2	124.8	96.6	72.0	52.8	38.6	29.9
65°	223.1	195.0	168.6	138.8	126.5	108.9	82.6	59.8	42.1	29.9	21.1
67.5°	196.8	172.1	145.8	121.2	108.9	94.9	70.2	51.0	35.1	24.6	17.6
70°	165.1	145.8	123.0	100.1	91.4	79.0	58.0	42.1	28.1	19.4	14.0
72.5°	131.8	116.0	98.4	80.8	73.8	61.5	47.4	33.4	21.1	14.0	10.5
75°	100.1	87.9	73.8	61.5	54.5	47.4	35.1	24.6	15.8	10.5	7.0
77.5°	68.5	63.2	52.8	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	17.6	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5
2.5°	1848.0	1848.0	1846.2	1867.4	1842.8	1867.4	1855.1	1867.4	1849.8	1848.0	1849.8
5°	1862.1	1867.4	1869.1	1888.5	1865.6	1895.5	1884.9	1895.5	1883.1	1886.8	1892.0
7.5°	1890.2	1899.0	1897.2	1921.9	1899.0	1932.4	1925.4	1941.1	1928.9	1932.4	1939.4
10°	1921.9	1932.4	1934.1	1958.8	1937.6	1978.0	1969.2	1986.9	1976.2	1981.5	1990.4
12.5°	1958.8	1971.0	1972.8	2000.9	1978.0	2020.2	2014.9	2032.5	2023.8	2029.0	2039.5
15°	1986.9	2004.4	2007.9	2036.0	2011.4	2055.4	2051.9	2074.6	2060.6	2069.4	2078.1
17.5°	2000.9	2016.6	2023.8	2050.0	2029.0	2072.9	2069.4	2088.8	2078.1	2087.0	2097.5
20°	1992.1	2011.4	2016.6	2043.0	2022.0	2065.9	2060.6	2079.9	2069.4	2076.4	2087.0
22.5°	1960.5	1979.8	1986.9	2011.4	1992.1	2032.5	2030.8	2048.2	2034.2	2043.0	2051.9
25°	1904.2	1925.4	1928.9	1951.6	1930.6	1972.8	1969.2	1988.6	1978.0	1983.2	1995.6
27.5°	1823.5	1848.0	1853.2	1872.6	1856.9	1892.0	1892.0	1907.8	1895.5	1895.5	1907.8
30°	1726.9	1751.4	1754.9	1770.8	1756.8	1788.4	1790.1	1805.9	1786.5	1797.1	1798.9
32.5°	1609.1	1625.0	1635.5	1649.5	1628.5	1668.9	1663.6	1675.9	1665.4	1665.4	1674.1
35°	1466.9	1486.1	1491.4	1509.0	1491.4	1523.0	1523.0	1530.1	1519.5	1519.5	1533.6
37.5°	1312.2	1326.2	1328.0	1345.6	1331.6	1357.9	1356.1	1361.4	1350.9	1357.9	1357.9
40°	1131.2	1141.9	1145.4	1154.1	1152.4	1171.8	1170.0	1173.5	1168.2	1170.0	1173.5
42.5°	920.5	934.5	941.6	948.6	938.1	964.4	959.1	964.4	962.6	964.4	969.8
45°	678.1	688.6	693.9	695.6	692.1	708.0	720.2	709.8	711.5	708.0	715.0
47.5°	490.1	491.9	488.4	498.9	490.1	497.1	500.6	502.4	491.9	490.1	497.1
50°	335.5	344.2	332.0	337.2	335.5	342.5	339.0	340.8	330.2	335.5	332.0
52.5°	223.1	221.4	217.9	219.6	216.1	216.1	216.1	219.6	212.5	209.0	205.5
55°	135.2	131.8	124.8	123.0	123.0	124.8	121.2	117.8	117.8	116.0	116.0
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: P252157

CATALOG NUMBER: LE_6B20D010 EC6B10208040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5	1837.5
2.5°	1865.6	1863.9	1865.6	1869.1	1862.1	1883.1	1872.6	1883.1
5°	1906.0	1907.8	1909.5	1914.8	1906.0	1932.4	1918.2	1934.1
7.5°	1958.8	1960.5	1962.2	1967.5	1962.2	1988.6	1972.8	1986.9
10°	2013.1	2016.6	2016.6	2025.5	2020.2	2044.8	2034.2	2051.9
12.5°	2064.1	2067.6	2071.1	2076.4	2072.9	2099.2	2090.5	2104.5
15°	2104.5	2111.5	2113.2	2120.4	2116.9	2144.9	2134.4	2148.4
17.5°	2123.9	2130.9	2130.9	2139.6	2136.1	2166.0	2152.0	2167.8
20°	2113.2	2118.6	2120.4	2129.1	2125.6	2155.5	2141.4	2160.8
22.5°	2079.9	2081.6	2083.5	2092.2	2090.5	2116.9	2104.5	2116.9
25°	2018.5	2023.8	2022.0	2029.0	2029.0	2050.0	2036.0	2046.5
27.5°	1930.6	1935.9	1935.9	1944.6	1937.6	1958.8	1944.6	1960.5
30°	1823.5	1828.8	1825.2	1832.2	1825.2	1846.2	1835.8	1841.0
32.5°	1695.2	1695.2	1697.0	1698.8	1695.2	1714.5	1704.0	1714.5
35°	1542.4	1545.9	1547.6	1549.4	1545.9	1560.0	1547.6	1554.6
37.5°	1370.2	1379.0	1377.2	1379.0	1373.8	1391.2	1380.8	1384.2
40°	1185.8	1185.8	1184.0	1187.5	1182.2	1196.2	1189.2	1192.8
42.5°	971.5	976.8	969.8	978.5	964.4	983.8	976.8	971.5
45°	729.0	722.0	720.2	722.0	716.8	718.5	723.8	720.2
47.5°	497.1	497.1	493.6	488.4	495.4	497.1	490.1	490.1
50°	333.8	333.8	330.2	328.5	332.0	330.2	326.8	332.0
52.5°	212.5	205.5	205.5	209.0	205.5	202.0	207.2	203.8
55°	116.0	112.4	112.4	116.0	112.4	112.4	110.6	114.1
57.5°	56.2	58.0	56.2	56.2	56.2	56.2	54.5	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



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













(END OF REPORT)