

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: P252154

Luminaire Tested: **LE_6B20D010 EC6B10208027 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252154
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 EC6B10208027 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3102.5 lumens
Efficiency: N/A
Efficacy: 149.2 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

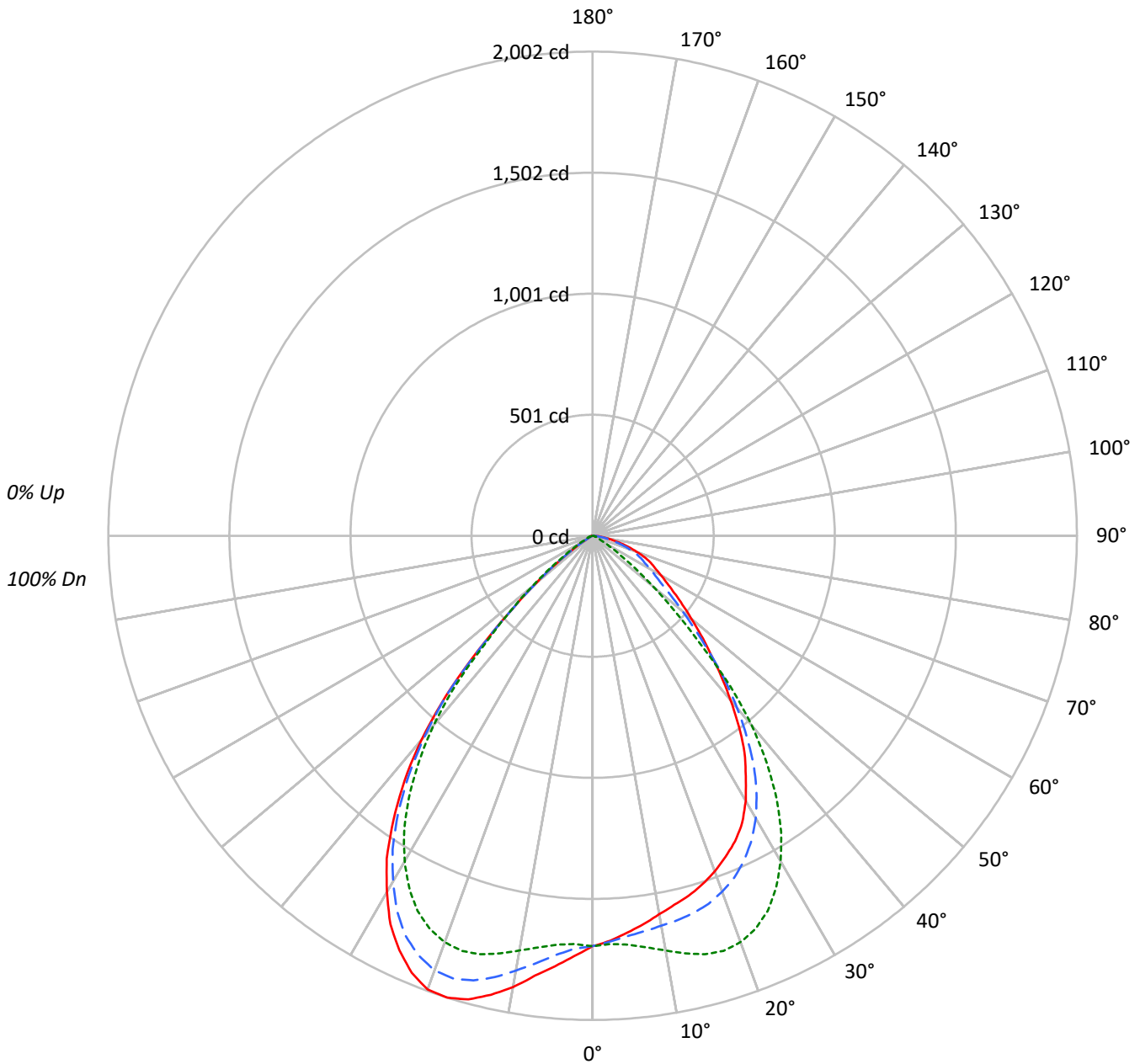
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	110726	110726	110726
5°	107862	111149	116998
10°	105240	115343	125551
15°	104008	120995	134037
20°	102517	124144	138571
25°	100340	123231	136081
30°	95342	117106	128104
35°	87226	105592	114377
40°	75457	87201	93835
45°	63625	57195	61374
50°	54016	33098	31119
55°	46874	15867	12000
60°	42341	7411	2975
65°	41079	4261	1003
70°	36834	3414	935
75°	30274	2470	403
80°	22542	1202	0
85°	19462	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.9	5.3
10°-20°	499.6	16.1
20°-30°	763.4	24.6
30°-40°	798.5	25.7
40°-50°	518.0	16.7
50°-60°	205.7	6.6
60°-70°	97.6	3.1
70°-80°	46.4	1.5
80°-90°	9.5	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°	1427.0	46.0
0°-40°	2225.5	71.7
0°-60°	2949.1	95.1
0°-90°	3102.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3102.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1697	1697	1697	1697	1697	
5°	1647	1662	1697	1740	1786	156
15°	1540	1614	1791	1903	1984	434
25°	1394	1482	1712	1827	1890	638
35°	1095	1162	1326	1404	1436	677
45°	690	683	620	657	665	537
55°	412	350	140	109	106	373
65°	266	221	28	6	6	260
75°	120	97	10	3	2	130
85°	26	16	0	0	0	30
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°	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2
2.5°	1676.2	1679.5	1661.6	1656.8	1669.8	1674.6	1676.2	1671.4	1673.0	1679.5	1679.5
5°	1647.0	1650.2	1634.0	1629.1	1642.1	1645.4	1650.2	1648.6	1653.5	1663.2	1661.6
7.5°	1619.4	1624.2	1606.5	1600.0	1616.1	1624.2	1627.5	1627.5	1634.0	1647.0	1648.6
10°	1588.6	1595.1	1578.9	1575.6	1593.5	1601.6	1603.2	1606.5	1616.1	1634.0	1637.2
12.5°	1562.6	1569.1	1557.8	1552.9	1572.4	1580.5	1583.8	1590.2	1601.6	1624.2	1627.5
15°	1539.9	1544.8	1531.8	1528.5	1548.0	1557.8	1559.4	1569.1	1583.8	1609.8	1614.5
17.5°	1510.8	1514.0	1504.2	1501.0	1520.5	1530.1	1531.8	1543.1	1561.0	1587.0	1595.1
20°	1476.6	1479.9	1470.1	1466.9	1486.4	1497.8	1499.4	1509.1	1530.1	1557.8	1565.9
22.5°	1436.1	1442.5	1431.2	1428.0	1447.4	1457.1	1462.0	1470.1	1491.2	1518.9	1530.1
25°	1393.9	1393.9	1385.8	1384.1	1402.0	1413.4	1411.8	1423.1	1444.1	1471.8	1481.5
27.5°	1338.8	1337.1	1329.0	1327.4	1346.9	1356.5	1353.2	1364.6	1384.1	1411.8	1421.5
30°	1265.6	1268.9	1257.6	1254.4	1270.5	1286.8	1285.1	1296.5	1316.0	1342.0	1348.5
32.5°	1178.0	1181.2	1179.6	1174.9	1189.4	1197.5	1202.4	1210.5	1226.8	1254.4	1260.9
35°	1095.2	1090.4	1084.0	1084.0	1098.5	1111.5	1106.6	1116.4	1132.6	1160.2	1161.9
37.5°	993.1	991.5	988.2	985.0	1001.1	1004.4	1006.0	1012.5	1027.1	1049.9	1046.6
40°	886.0	887.6	886.0	879.5	889.2	902.2	900.6	903.9	916.8	933.0	928.1
42.5°	785.4	785.4	785.4	778.9	790.2	796.8	800.0	798.4	801.6	816.2	809.8
45°	689.6	691.2	689.6	688.0	689.6	692.9	689.6	688.0	688.0	692.9	683.1
47.5°	606.9	606.9	602.0	597.1	602.0	603.6	598.8	593.9	592.2	590.6	574.4
50°	532.2	530.6	529.0	520.9	525.8	527.4	520.9	517.6	511.1	503.0	483.5
52.5°	467.4	465.8	464.1	456.0	459.2	460.9	454.4	447.9	439.8	433.2	408.9
55°	412.1	410.5	410.5	405.6	402.4	405.6	399.1	394.2	383.0	374.9	350.5
57.5°	365.1	365.1	361.9	357.0	358.6	358.6	352.1	345.6	335.9	326.1	306.6
60°	324.5	324.5	324.5	319.6	319.6	319.6	316.4	309.9	301.9	292.1	272.6
62.5°	292.1	292.1	290.5	285.6	287.2	287.2	284.0	277.5	269.4	262.9	243.4
65°	266.1	266.1	266.1	261.2	261.2	262.9	259.6	253.1	246.6	238.5	220.6
67.5°	233.6	232.0	232.0	228.8	230.4	232.0	228.8	223.9	215.9	211.0	194.8
70°	193.1	194.8	196.4	191.5	193.1	193.1	191.5	186.6	181.8	176.9	162.2
72.5°	157.4	157.4	155.8	154.1	154.1	155.8	152.5	147.6	144.4	141.1	129.9
75°	120.1	118.5	120.1	116.9	116.9	116.9	113.6	112.0	110.4	105.5	97.4
77.5°	87.6	86.0	86.0	82.8	84.4	84.4	82.8	79.5	76.2	74.6	68.1
80°	60.0	60.0	60.0	58.4	58.4	56.8	56.8	55.1	51.9	50.2	47.0
82.5°	40.6	40.6	40.6	39.0	39.0	39.0	37.4	35.8	34.1	32.5	29.2
85°	26.0	26.0	26.0	24.4	24.4	24.4	22.8	22.8	21.1	19.5	16.2
87.5°	14.6	14.6	14.6	13.0	13.0	13.0	13.0	13.0	11.4	9.8	8.1
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°	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2
2.5°	1690.9	1668.1	1682.8	1682.8	1677.9	1690.9	1698.9	1705.4	1703.8	1689.2	1687.6
5°	1677.9	1658.4	1674.6	1676.2	1671.4	1689.2	1700.5	1708.6	1710.2	1697.2	1698.9
7.5°	1668.1	1651.9	1673.0	1679.5	1677.9	1694.1	1707.0	1720.0	1726.5	1716.8	1718.4
10°	1663.2	1650.2	1673.0	1682.8	1684.4	1702.1	1721.6	1739.5	1747.6	1741.1	1746.0
12.5°	1656.8	1648.6	1674.6	1689.2	1695.8	1713.5	1737.9	1759.0	1772.0	1768.8	1778.5
15°	1650.2	1643.8	1674.6	1695.8	1703.8	1720.0	1747.6	1778.5	1793.0	1791.4	1804.4
17.5°	1634.0	1632.4	1664.9	1687.6	1698.9	1718.4	1744.4	1781.8	1796.2	1799.5	1815.8
20°	1608.1	1608.1	1643.8	1668.1	1681.1	1698.9	1731.4	1767.1	1784.9	1788.1	1806.0
22.5°	1572.4	1575.6	1609.8	1634.0	1653.5	1666.5	1700.5	1737.9	1754.1	1759.0	1778.5
25°	1525.2	1528.5	1561.0	1585.4	1606.5	1621.0	1653.5	1687.6	1707.0	1711.9	1726.5
27.5°	1463.6	1470.1	1501.0	1525.2	1543.1	1552.9	1587.0	1622.6	1637.2	1642.1	1656.8
30°	1392.2	1393.9	1424.8	1445.8	1463.6	1471.8	1501.0	1538.2	1549.6	1554.5	1575.6
32.5°	1304.6	1303.0	1332.2	1351.6	1366.2	1376.0	1406.9	1431.2	1442.5	1450.6	1462.0
35°	1199.1	1197.5	1218.6	1241.4	1252.8	1256.0	1286.8	1312.8	1319.2	1325.8	1340.4
37.5°	1080.8	1080.8	1098.5	1109.9	1122.9	1127.8	1142.4	1171.6	1182.9	1181.2	1192.6
40°	955.8	949.2	962.2	973.6	976.9	978.5	993.1	1015.8	1023.9	1023.9	1032.0
42.5°	824.4	814.6	816.2	822.8	826.0	814.6	824.4	838.9	834.0	840.5	842.1
45°	684.8	670.1	663.6	649.1	652.4	641.0	634.5	637.8	636.1	619.9	623.1
47.5°	571.1	545.2	533.9	512.8	507.9	494.9	486.8	472.2	459.2	459.2	451.1
50°	475.5	449.5	426.8	402.4	394.2	383.0	365.1	345.6	335.9	326.1	318.0
52.5°	399.1	371.6	344.0	318.0	306.6	292.1	267.8	248.2	230.4	220.6	211.0
55°	337.5	306.6	277.5	249.9	235.2	220.6	196.4	173.6	152.5	139.5	131.4
57.5°	290.5	261.2	230.4	201.2	188.2	172.0	146.0	121.8	102.2	87.6	79.5
60°	256.4	227.1	199.6	168.8	155.8	139.5	112.0	89.2	69.8	56.8	47.0
62.5°	227.1	201.2	172.0	144.4	131.4	115.2	89.2	66.5	48.6	35.8	27.6
65°	206.1	180.1	155.8	128.2	116.9	100.6	76.2	55.1	39.0	27.6	19.5
67.5°	181.8	159.0	134.6	112.0	100.6	87.6	64.9	47.0	32.5	22.8	16.2
70°	152.5	134.6	113.6	92.5	84.4	73.0	53.5	39.0	26.0	17.9	13.0
72.5°	121.8	107.1	90.9	74.6	68.1	56.8	43.8	30.9	19.5	13.0	9.8
75°	92.5	81.1	68.1	56.8	50.2	43.8	32.5	22.8	14.6	9.8	6.5
77.5°	63.2	58.4	48.6	39.0	35.8	30.9	21.1	14.6	9.8	6.5	3.2
80°	43.8	39.0	32.5	26.0	22.8	19.5	13.0	9.8	4.9	3.2	1.6
82.5°	27.6	22.8	19.5	16.2	14.6	11.4	8.1	4.9	3.2	1.6	1.6
85°	14.6	13.0	11.4	8.1	8.1	6.5	4.9	3.2	1.6	0.0	0.0
87.5°	8.1	6.5	4.9	3.2	3.2	1.6	1.6	1.6	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°	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2
2.5°	1707.0	1707.0	1705.4	1724.9	1702.1	1724.9	1713.5	1724.9	1708.6	1707.0	1708.6
5°	1720.0	1724.9	1726.5	1744.4	1723.2	1750.9	1741.1	1750.9	1739.5	1742.8	1747.6
7.5°	1746.0	1754.1	1752.5	1775.2	1754.1	1784.9	1778.5	1793.0	1781.8	1784.9	1791.4
10°	1775.2	1784.9	1786.5	1809.2	1789.8	1827.1	1819.0	1835.2	1825.5	1830.4	1838.5
12.5°	1809.2	1820.6	1822.2	1848.2	1827.1	1866.1	1861.2	1877.4	1869.4	1874.1	1883.9
15°	1835.2	1851.5	1854.8	1880.6	1858.0	1898.5	1895.2	1916.4	1903.4	1911.5	1919.6
17.5°	1848.2	1862.9	1869.4	1893.6	1874.1	1914.8	1911.5	1929.4	1919.6	1927.8	1937.5
20°	1840.1	1858.0	1862.9	1887.1	1867.8	1908.2	1903.4	1921.2	1911.5	1918.0	1927.8
22.5°	1810.9	1828.8	1835.2	1858.0	1840.1	1877.4	1875.8	1892.0	1879.0	1887.1	1895.2
25°	1759.0	1778.5	1781.8	1802.8	1783.4	1822.2	1819.0	1836.9	1827.1	1832.0	1843.4
27.5°	1684.4	1707.0	1711.9	1729.8	1715.1	1747.6	1747.6	1762.2	1750.9	1750.9	1762.2
30°	1595.1	1617.8	1621.0	1635.6	1622.6	1651.9	1653.5	1668.1	1650.2	1660.0	1661.6
32.5°	1486.4	1501.0	1510.8	1523.6	1504.2	1541.5	1536.6	1548.0	1538.2	1538.2	1546.4
35°	1354.9	1372.8	1377.6	1393.9	1377.6	1406.9	1406.9	1413.4	1403.6	1403.6	1416.6
37.5°	1212.1	1225.1	1226.8	1243.0	1230.0	1254.4	1252.8	1257.6	1247.9	1254.4	1254.4
40°	1045.0	1054.8	1058.0	1066.1	1064.5	1082.4	1080.8	1084.0	1079.1	1080.8	1084.0
42.5°	850.2	863.2	869.8	876.2	866.5	890.9	886.0	890.9	889.2	890.9	895.8
45°	626.4	636.1	641.0	642.6	639.4	653.9	665.2	655.5	657.1	653.9	660.4
47.5°	452.8	454.4	451.1	460.9	452.8	459.2	462.5	464.1	454.4	452.8	459.2
50°	309.9	318.0	306.6	311.5	309.9	316.4	313.1	314.8	305.0	309.9	306.6
52.5°	206.1	204.5	201.2	202.9	199.6	199.6	199.6	202.9	196.4	193.1	189.9
55°	125.0	121.8	115.2	113.6	113.6	115.2	112.0	108.8	108.8	107.1	107.1
57.5°	73.0	68.1	64.9	63.2	60.0	58.4	56.8	56.8	53.5	53.5	53.5
60°	40.6	35.8	32.5	29.2	29.2	27.6	26.0	24.4	24.4	24.4	22.8
62.5°	21.1	17.9	14.6	13.0	13.0	11.4	9.8	9.8	9.8	9.8	8.1
65°	14.6	11.4	9.8	8.1	8.1	6.5	6.5	6.5	6.5	6.5	6.5
67.5°	11.4	9.8	8.1	6.5	6.5	6.5	4.9	4.9	4.9	4.9	4.9
70°	9.8	6.5	6.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
72.5°	6.5	6.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
75°	4.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0
80°	1.6	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: P252154

CATALOG NUMBER: LE_6B20D010 EC6B10208027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2	1697.2
2.5°	1723.2	1721.6	1723.2	1726.5	1720.0	1739.5	1729.8	1739.5
5°	1760.6	1762.2	1763.9	1768.8	1760.6	1784.9	1772.0	1786.5
7.5°	1809.2	1810.9	1812.5	1817.4	1812.5	1836.9	1822.2	1835.2
10°	1859.6	1862.9	1862.9	1871.0	1866.1	1888.8	1879.0	1895.2
12.5°	1906.6	1909.9	1913.1	1918.0	1914.8	1939.1	1931.0	1944.0
15°	1944.0	1950.5	1952.1	1958.5	1955.4	1981.2	1971.5	1984.5
17.5°	1961.8	1968.2	1968.2	1976.4	1973.1	2000.8	1987.8	2002.4
20°	1952.1	1957.0	1958.5	1966.6	1963.4	1991.0	1978.0	1995.9
22.5°	1921.2	1922.9	1924.5	1932.6	1931.0	1955.4	1944.0	1955.4
25°	1864.5	1869.4	1867.8	1874.1	1874.1	1893.6	1880.6	1890.4
27.5°	1783.4	1788.1	1788.1	1796.2	1789.8	1809.2	1796.2	1810.9
30°	1684.4	1689.2	1686.0	1692.5	1686.0	1705.4	1695.8	1700.5
32.5°	1565.9	1565.9	1567.5	1569.1	1565.9	1583.8	1574.0	1583.8
35°	1424.8	1428.0	1429.6	1431.2	1428.0	1440.9	1429.6	1436.1
37.5°	1265.6	1273.8	1272.1	1273.8	1268.9	1285.1	1275.4	1278.6
40°	1095.2	1095.2	1093.6	1096.9	1092.0	1105.0	1098.5	1101.8
42.5°	897.4	902.2	895.8	903.9	890.9	908.8	902.2	897.4
45°	673.4	666.9	665.2	666.9	662.0	663.6	668.5	665.2
47.5°	459.2	459.2	456.0	451.1	457.6	459.2	452.8	452.8
50°	308.2	308.2	305.0	303.5	306.6	305.0	301.9	306.6
52.5°	196.4	189.9	189.9	193.1	189.9	186.6	191.5	188.2
55°	107.1	103.9	103.9	107.1	103.9	103.9	102.2	105.5
57.5°	51.9	53.5	51.9	51.9	51.9	51.9	50.2	51.9
60°	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8
62.5°	9.8	9.8	8.1	8.1	8.1	8.1	8.1	8.1
65°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
67.5°	4.9	4.9	4.9	4.9	4.9	6.5	4.9	4.9
70°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
72.5°	4.9	4.9	6.5	6.5	6.5	6.5	6.5	6.5
75°	3.2	3.2	3.2	1.6	1.6	1.6	1.6	1.6
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)