

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: P252501

Luminaire Tested: **LE_6B40D010 EC6B30509040 6LBLWW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252501
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-6)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B40D010 EC6B30509040 6LBLWW1H
Description: PORTFOLIO 6 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3847.5 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.02 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

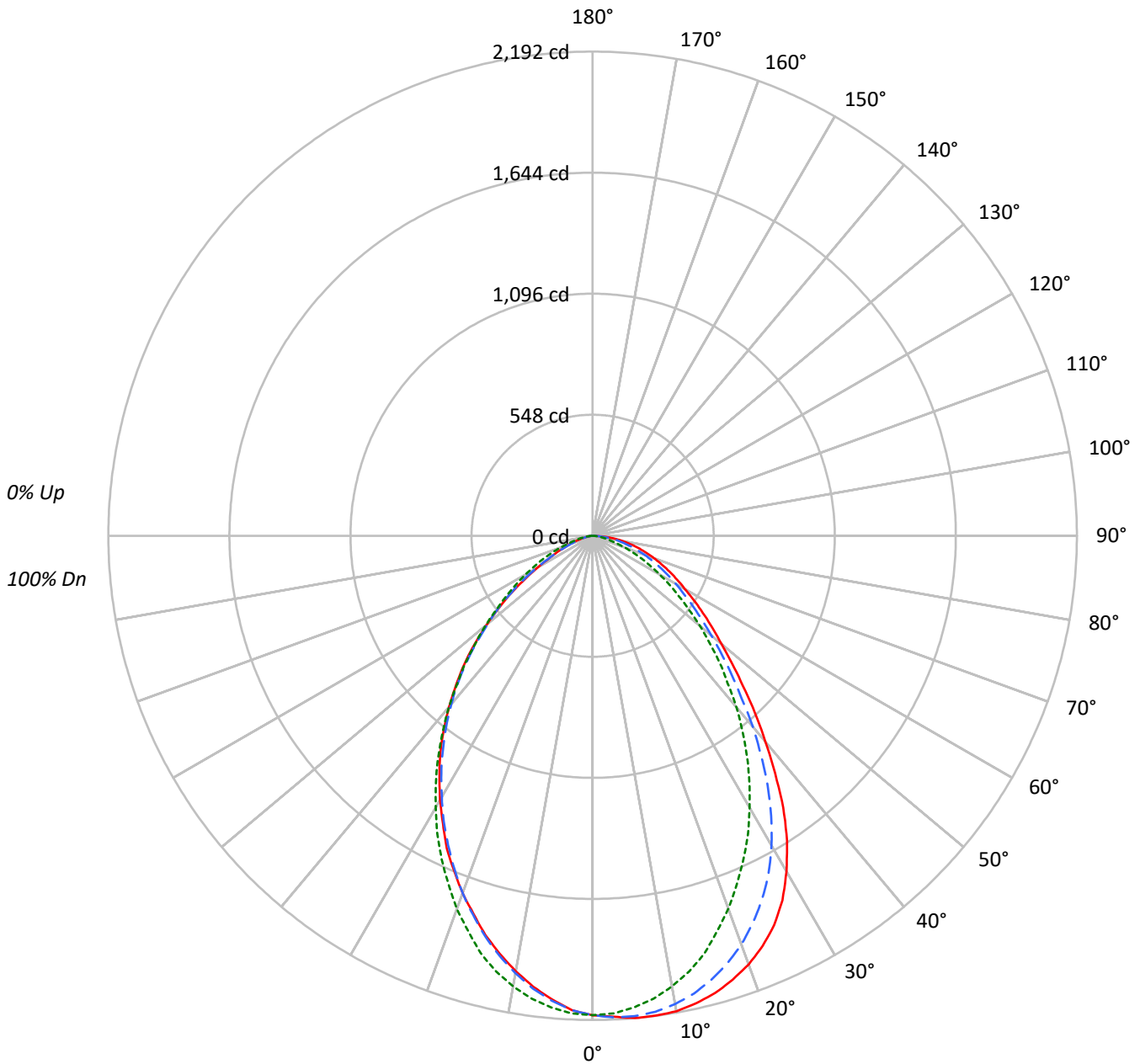
Input Watts (W): 43
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252501

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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	111	107	103	100	108	105	101	99	100	98	96	97	95	93	93	91	90	88				88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77
3	95	86	79	73	93	84	78	73	81	76	71	79	74	70	76	72	69	67				67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47				47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	43				43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				39
9	63	50	43	38	61	50	43	38	49	42	37	48	42	37	47	41	37	35				35
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33				33

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	141605	141605	141605
5°	143528	140371	138000
10°	144790	137204	132613
15°	144770	132146	126446
20°	143368	124748	119513
25°	139975	116321	112412
30°	132172	106966	104020
35°	119817	96999	95804
40°	103468	86264	86009
45°	88721	75103	75657
50°	77117	64257	63334
55°	69270	54187	50741
60°	62944	45642	37370
65°	59109	37698	27463
70°	56348	29337	20124
75°	53943	21275	13662
80°	50946	14728	9055
85°	45063	8983	4491



TEST NUMBER: P252501

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	5.3
10°-20°	556.1	14.5
20°-30°	772.0	20.1
30°-40°	799.6	20.8
40°-50°	657.1	17.1
50°-60°	451.6	11.7
60°-70°	259.6	6.7
70°-80°	119.3	3.1
80°-90°	29.0	0.8
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°	1531.1	39.8
0°-40°	2330.8	60.6
0°-60°	3439.5	89.4
0°-90°	3847.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3847.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2170	2170	2170	2170	2170	
5°	2192	2183	2143	2113	2107	209
15°	2143	2080	1956	1878	1872	604
25°	1944	1815	1616	1546	1562	890
35°	1504	1381	1218	1182	1203	933
45°	962	889	814	805	820	749
55°	609	552	476	449	446	548
65°	383	335	244	172	178	381
75°	214	169	84	54	54	226
85°	60	42	12	6	6	68
90°	0	0	0	0	0	



TEST NUMBER: P252501

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5
2.5°	2179.6	2197.8	2185.6	2182.6	2188.6	2188.6	2188.6	2179.6	2185.6	2176.6	2182.6
5°	2191.6	2206.8	2194.6	2188.6	2194.6	2197.8	2188.6	2182.6	2191.6	2179.6	2182.6
7.5°	2191.6	2206.8	2194.6	2191.6	2194.6	2194.6	2191.6	2179.6	2185.6	2173.6	2173.6
10°	2185.6	2197.8	2185.6	2179.6	2182.6	2179.6	2179.6	2164.5	2167.5	2152.5	2152.5
12.5°	2167.5	2182.6	2167.5	2161.5	2161.5	2161.5	2152.5	2140.4	2143.4	2125.4	2122.4
15°	2143.4	2155.5	2140.4	2134.4	2134.4	2131.4	2125.4	2107.2	2107.2	2089.1	2080.1
17.5°	2107.2	2119.2	2107.2	2098.2	2095.2	2089.1	2083.1	2065.0	2059.0	2037.9	2028.9
20°	2065.0	2074.1	2062.0	2053.0	2047.0	2040.9	2028.9	2010.8	2004.8	1983.6	1968.6
22.5°	2010.8	2022.9	2004.8	1995.8	1989.6	1980.6	1968.6	1950.5	1941.5	1914.4	1896.2
25°	1944.5	1950.5	1935.4	1926.4	1914.4	1908.2	1899.2	1875.1	1866.1	1835.9	1814.9
27.5°	1860.0	1866.1	1848.0	1842.0	1826.9	1820.9	1808.8	1787.8	1775.6	1745.5	1724.4
30°	1754.5	1760.6	1748.5	1739.5	1727.4	1715.4	1706.2	1685.2	1667.1	1637.0	1618.9
32.5°	1637.0	1646.0	1634.0	1621.9	1600.8	1603.8	1588.8	1567.6	1552.5	1525.4	1504.4
35°	1504.4	1510.4	1495.2	1492.2	1480.2	1468.1	1453.1	1438.0	1429.0	1398.8	1380.8
37.5°	1356.6	1371.6	1356.6	1344.5	1338.5	1329.5	1320.4	1299.4	1293.2	1275.2	1251.1
40°	1214.9	1224.0	1214.9	1202.9	1193.8	1193.8	1181.8	1169.8	1154.6	1136.5	1127.5
42.5°	1088.2	1082.2	1079.2	1073.2	1061.1	1058.1	1055.1	1040.0	1031.0	1012.9	997.9
45°	961.6	964.8	958.6	955.6	946.6	940.6	934.5	922.5	919.5	901.4	889.4
47.5°	856.1	853.1	847.1	847.1	841.1	835.1	829.0	820.0	817.0	801.9	789.9
50°	759.8	762.8	759.8	756.6	747.6	744.6	738.6	732.6	726.5	711.5	699.4
52.5°	681.4	678.2	675.2	675.2	666.2	663.2	657.2	651.1	645.1	630.1	621.0
55°	609.0	609.0	606.0	602.9	593.9	590.9	587.9	581.9	572.8	560.8	551.6
57.5°	542.6	542.6	539.6	536.6	530.6	530.6	524.5	518.5	512.5	500.4	488.4
60°	482.4	485.4	482.4	479.4	473.2	473.2	470.2	461.2	458.2	443.1	434.1
62.5°	431.1	431.1	431.1	428.1	425.1	419.0	419.0	410.0	404.0	394.9	382.9
65°	382.9	382.9	382.9	379.9	373.9	370.8	367.8	361.8	355.8	346.6	334.6
67.5°	337.6	337.6	337.6	334.6	328.6	325.6	322.6	319.5	310.5	301.5	289.4
70°	295.4	295.4	292.4	289.4	286.4	283.4	280.4	274.4	268.2	256.2	247.2
72.5°	253.2	253.2	253.2	247.2	244.2	244.2	238.1	235.1	229.1	217.0	208.0
75°	214.0	211.0	211.0	208.0	205.0	202.0	199.0	196.0	186.9	180.9	168.9
77.5°	174.9	174.9	171.9	168.9	168.9	165.8	162.8	156.8	153.8	144.8	135.6
80°	135.6	135.6	135.6	135.6	132.6	129.6	129.6	123.6	120.6	111.5	105.5
82.5°	102.5	99.5	99.5	99.5	96.5	93.5	93.5	90.5	87.4	81.4	75.4
85°	60.2	57.2	57.2	57.2	54.2	54.2	51.2	51.2	48.2	42.2	42.2
87.5°	18.1	18.1	21.1	21.1	18.1	18.1	18.1	18.1	18.1	15.1	15.1
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: P252501

CATALOG NUMBER: LE_6B40D010 EC6B30509040 6LBLWW1H

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5
2.5°	2176.6	2185.6	2173.6	2170.5	2182.6	2176.6	2173.6	2167.5	2170.5	2164.5	2155.5
5°	2173.6	2185.6	2170.5	2161.5	2176.6	2167.5	2161.5	2155.5	2155.5	2143.4	2137.4
7.5°	2164.5	2170.5	2155.5	2146.5	2155.5	2146.5	2140.4	2131.4	2128.4	2113.2	2104.2
10°	2140.4	2146.5	2128.4	2116.2	2125.4	2113.2	2104.2	2095.2	2089.1	2071.1	2059.0
12.5°	2107.2	2110.2	2089.1	2074.1	2080.1	2071.1	2056.0	2044.0	2037.9	2019.9	2004.8
15°	2062.0	2065.0	2040.9	2019.9	2025.9	2013.8	1995.8	1983.6	1974.6	1956.5	1935.4
17.5°	2007.8	2004.8	1977.6	1956.5	1959.5	1944.5	1926.4	1908.2	1896.2	1875.1	1860.0
20°	1947.5	1938.4	1908.2	1884.1	1887.1	1869.1	1848.0	1829.9	1814.9	1796.8	1775.6
22.5°	1872.1	1860.0	1832.9	1802.8	1805.8	1790.8	1760.6	1745.5	1730.4	1706.2	1688.2
25°	1790.8	1772.6	1745.5	1715.4	1715.4	1697.2	1673.1	1655.0	1640.0	1615.9	1594.8
27.5°	1694.2	1685.2	1649.0	1624.9	1621.9	1603.8	1582.8	1561.6	1543.5	1522.4	1501.2
30°	1588.8	1573.6	1546.5	1519.4	1513.4	1498.2	1477.1	1453.1	1441.0	1419.9	1401.9
32.5°	1477.1	1462.1	1432.0	1404.9	1401.9	1389.8	1371.6	1347.5	1335.5	1320.4	1308.4
35°	1350.6	1344.5	1314.4	1293.2	1293.2	1281.2	1263.1	1242.0	1233.0	1217.9	1202.9
37.5°	1230.0	1221.0	1193.8	1175.8	1175.8	1160.6	1142.5	1133.5	1124.5	1112.4	1103.4
40°	1103.4	1097.4	1076.2	1058.1	1061.1	1049.1	1037.0	1025.0	1019.0	1012.9	1003.9
42.5°	985.8	979.8	964.8	949.6	949.6	940.6	928.5	919.5	913.5	904.4	901.4
45°	880.2	871.2	859.1	844.1	844.1	835.1	829.0	823.0	820.0	814.0	804.9
47.5°	777.8	771.8	759.8	744.6	744.6	744.6	732.6	723.5	723.5	717.5	714.5
50°	690.4	681.4	672.2	660.2	660.2	654.1	645.1	636.1	636.1	633.1	627.0
52.5°	609.0	602.9	590.9	578.9	578.9	572.8	563.8	560.8	557.8	548.6	545.6
55°	539.6	533.6	524.5	509.5	506.5	503.5	494.4	488.4	485.4	476.4	476.4
57.5°	476.4	470.2	455.2	446.1	443.1	437.1	428.1	422.0	419.0	413.0	407.0
60°	422.0	413.0	401.0	388.9	385.9	379.9	370.8	364.8	361.8	349.8	343.6
62.5°	370.8	361.8	349.8	337.6	334.6	328.6	316.5	310.5	304.5	292.4	286.4
65°	322.6	313.5	301.5	289.4	283.4	280.4	268.2	259.2	253.2	244.2	232.1
67.5°	277.4	268.2	256.2	241.1	241.1	232.1	223.1	214.0	205.0	196.0	186.9
70°	235.1	226.1	214.0	202.0	199.0	193.0	183.9	171.9	165.8	153.8	144.8
72.5°	196.0	186.9	174.9	162.8	159.8	153.8	144.8	132.6	123.6	114.5	105.5
75°	159.8	150.8	138.6	129.6	126.6	120.6	111.5	99.5	90.5	84.4	75.4
77.5°	126.6	117.6	108.5	99.5	96.5	90.5	81.4	75.4	66.4	60.2	51.2
80°	96.5	90.5	81.4	75.4	72.4	66.4	60.2	51.2	45.2	39.2	36.1
82.5°	69.4	63.2	57.2	48.2	48.2	42.2	39.2	33.1	27.1	24.1	21.1
85°	39.2	33.1	30.1	27.1	24.1	24.1	21.1	18.1	15.1	12.0	12.0
87.5°	12.0	12.0	9.0	9.0	9.0	9.0	6.0	6.0	6.0	6.0	6.0
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: P252501

CATALOG NUMBER: LE_6B40D010 EC6B30509040 6LBLWW1H

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5
2.5°	2155.5	2158.5	2152.5	2158.5	2152.5	2155.5	2149.5	2155.5	2149.5	2155.5	2143.4
5°	2134.4	2134.4	2125.4	2131.4	2125.4	2128.4	2116.2	2119.2	2113.2	2119.2	2107.2
7.5°	2098.2	2101.2	2086.1	2092.1	2083.1	2083.1	2074.1	2077.1	2068.0	2071.1	2062.0
10°	2056.0	2053.0	2037.9	2044.0	2031.9	2031.9	2022.9	2022.9	2010.8	2013.8	2001.8
12.5°	1995.8	1992.8	1974.6	1980.6	1968.6	1968.6	1959.5	1959.5	1947.5	1953.5	1941.5
15°	1926.4	1923.4	1905.2	1908.2	1896.2	1896.2	1884.1	1887.1	1878.1	1884.1	1872.1
17.5°	1848.0	1845.0	1826.9	1829.9	1814.9	1817.9	1808.8	1805.8	1799.8	1802.8	1793.8
20°	1766.6	1760.6	1742.5	1745.5	1739.5	1730.4	1724.4	1727.4	1721.4	1727.4	1718.4
22.5°	1682.1	1670.1	1655.0	1655.0	1649.0	1649.0	1640.0	1646.0	1634.0	1643.0	1637.0
25°	1585.8	1576.6	1564.6	1570.6	1558.6	1558.6	1549.5	1552.5	1546.5	1552.5	1546.5
27.5°	1492.2	1486.2	1468.1	1474.1	1465.1	1468.1	1459.1	1462.1	1459.1	1465.1	1459.1
30°	1392.8	1389.8	1377.8	1377.8	1374.8	1371.6	1368.6	1368.6	1365.6	1374.8	1368.6
32.5°	1299.4	1290.2	1278.2	1287.2	1272.2	1281.2	1275.2	1281.2	1275.2	1281.2	1278.2
35°	1202.9	1199.9	1184.8	1187.8	1184.8	1184.8	1181.8	1181.8	1181.8	1190.8	1190.8
37.5°	1100.4	1097.4	1088.2	1091.2	1085.2	1082.2	1082.2	1088.2	1088.2	1094.4	1094.4
40°	1000.9	1003.9	994.9	994.9	991.9	991.9	991.9	997.9	994.9	1000.9	997.9
42.5°	901.4	901.4	892.4	895.4	892.4	895.4	895.4	901.4	901.4	904.4	901.4
45°	807.9	807.9	804.9	807.9	801.9	804.9	801.9	807.9	804.9	807.9	807.9
47.5°	714.5	714.5	714.5	711.5	711.5	711.5	711.5	711.5	708.5	714.5	711.5
50°	627.0	630.1	627.0	627.0	624.0	627.0	624.0	624.0	618.0	621.0	621.0
52.5°	548.6	548.6	542.6	542.6	542.6	539.6	539.6	539.6	536.6	536.6	530.6
55°	473.2	473.2	467.2	467.2	464.2	461.2	458.2	458.2	449.1	449.1	440.1
57.5°	404.0	401.0	391.9	391.9	385.9	382.9	379.9	376.9	370.8	364.8	361.8
60°	340.6	334.6	328.6	325.6	319.5	313.5	307.5	301.5	295.4	292.4	289.4
62.5°	280.4	271.4	265.2	262.2	256.2	247.2	241.1	235.1	229.1	226.1	220.1
65°	226.1	217.0	208.0	205.0	199.0	193.0	183.9	177.9	171.9	168.9	168.9
67.5°	177.9	168.9	156.8	156.8	150.8	144.8	138.6	132.6	129.6	132.6	132.6
70°	132.6	126.6	117.6	114.5	108.5	102.5	99.5	99.5	99.5	102.5	99.5
72.5°	99.5	90.5	84.4	81.4	78.4	75.4	75.4	75.4	72.4	75.4	75.4
75°	69.4	63.2	57.2	57.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
77.5°	48.2	42.2	39.2	39.2	39.2	36.1	36.1	36.1	36.1	36.1	36.1
80°	30.1	30.1	27.1	27.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
82.5°	18.1	18.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
85°	9.0	9.0	9.0	9.0	9.0	6.0	6.0	6.0	6.0	6.0	6.0
87.5°	3.0	3.0	3.0	3.0	3.0	6.0	6.0	6.0	6.0	6.0	6.0
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: P252501

CATALOG NUMBER: LE_6B40D010 EC6B30509040 6LBLWW1H

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5	2170.5
2.5°	2143.4	2152.5	2140.4	2149.5	2146.5	2143.4	2137.4	2149.5
5°	2107.2	2110.2	2098.2	2110.2	2107.2	2101.2	2095.2	2107.2
7.5°	2056.0	2065.0	2050.0	2062.0	2059.0	2053.0	2047.0	2059.0
10°	1998.8	2007.8	1995.8	2004.8	2004.8	1998.8	1989.6	2001.8
12.5°	1935.4	1941.5	1929.4	1941.5	1938.4	1932.4	1929.4	1938.4
15°	1866.1	1875.1	1863.1	1872.1	1869.1	1866.1	1863.1	1872.1
17.5°	1790.8	1799.8	1790.8	1799.8	1799.8	1790.8	1787.8	1793.8
20°	1715.4	1721.4	1712.4	1721.4	1718.4	1718.4	1712.4	1721.4
22.5°	1630.9	1640.0	1634.0	1640.0	1637.0	1637.0	1634.0	1640.0
25°	1546.5	1555.6	1546.5	1555.6	1552.5	1552.5	1546.5	1561.6
27.5°	1462.1	1468.1	1459.1	1471.1	1468.1	1462.1	1465.1	1468.1
30°	1371.6	1377.8	1371.6	1380.8	1380.8	1380.8	1374.8	1380.8
32.5°	1281.2	1290.2	1281.2	1290.2	1287.2	1287.2	1284.2	1290.2
35°	1190.8	1193.8	1187.8	1196.9	1196.9	1199.9	1193.8	1202.9
37.5°	1097.4	1100.4	1097.4	1100.4	1106.4	1097.4	1103.4	1106.4
40°	1000.9	1006.9	1003.9	1006.9	1006.9	1009.9	1006.9	1009.9
42.5°	904.4	910.4	904.4	913.5	910.4	910.4	913.5	913.5
45°	804.9	814.0	807.9	814.0	817.0	814.0	814.0	820.0
47.5°	711.5	717.5	714.5	717.5	717.5	717.5	717.5	723.5
50°	618.0	621.0	621.0	624.0	624.0	627.0	621.0	624.0
52.5°	524.5	530.6	530.6	530.6	527.6	530.6	530.6	530.6
55°	440.1	443.1	437.1	443.1	443.1	440.1	440.1	446.1
57.5°	358.8	358.8	358.8	358.8	358.8	355.8	358.8	358.8
60°	283.4	286.4	283.4	283.4	283.4	283.4	280.4	286.4
62.5°	220.1	220.1	217.0	220.1	220.1	220.1	223.1	223.1
65°	171.9	174.9	171.9	174.9	174.9	174.9	174.9	177.9
67.5°	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6
70°	102.5	102.5	102.5	105.5	102.5	102.5	102.5	105.5
72.5°	75.4	75.4	75.4	75.4	75.4	75.4	78.4	78.4
75°	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
77.5°	36.1	36.1	36.1	39.2	36.1	39.2	36.1	36.1
80°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
82.5°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
85°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
87.5°	6.0	6.0	6.0	6.0	3.0	3.0	3.0	3.0
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)