

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P858229

Luminaire Tested: **LX4C45D010 EX4C459830 4LBSWNH**

Issue Date: 2/18/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P858229  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C45D010 EX4C459830 4LBSWNH  
Description:  
Light Source: -  
Ballast/Driver: -

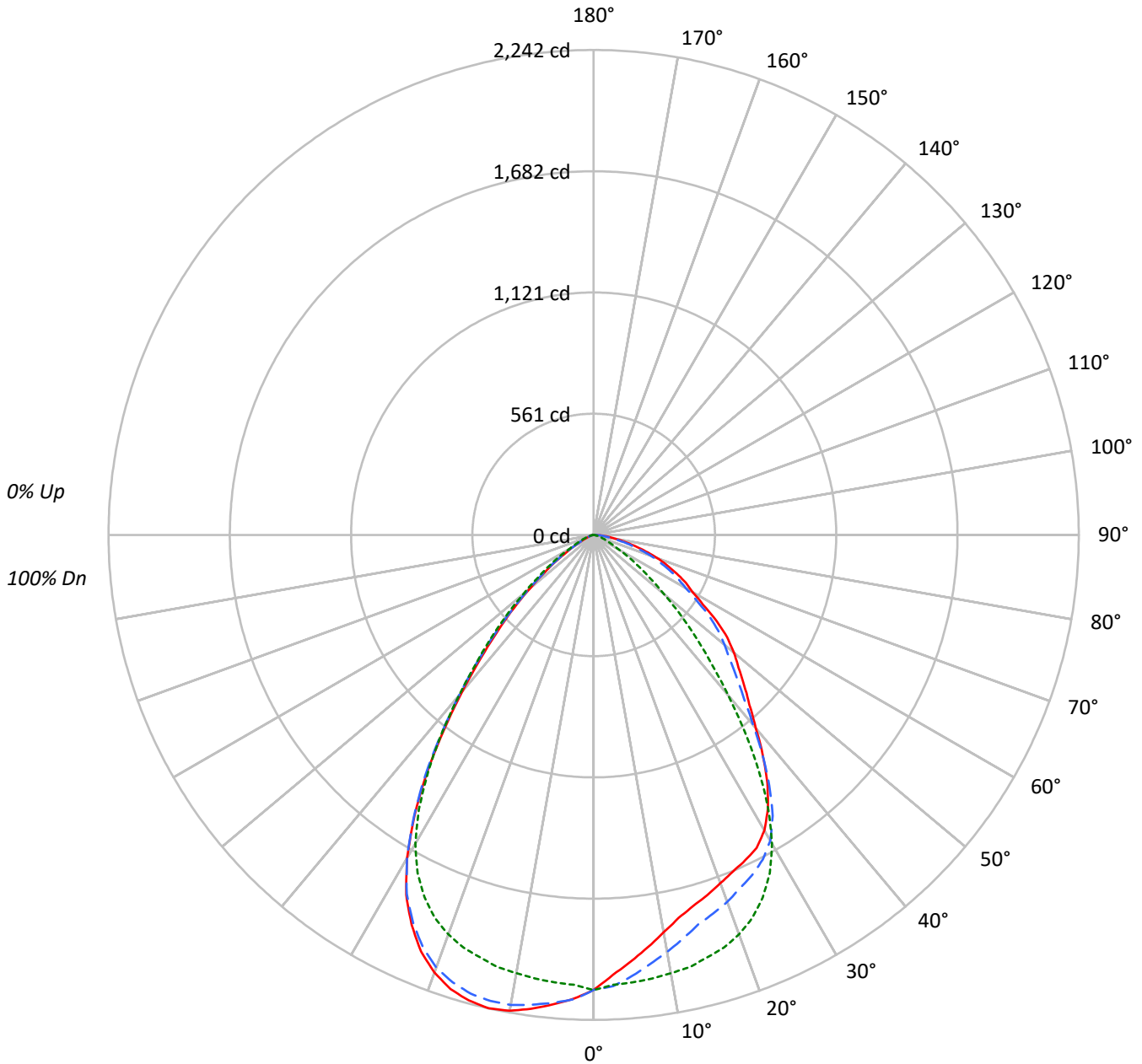
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3687.3 lumens  
Efficiency: N/A  
Efficacy: 74.3 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 49.6  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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									
RC	80									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																			
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																			
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70																			
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56																			
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50																			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46																			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38																			
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	258435	258435	258435
5°	244043	256080	268770
10°	232656	256658	278639
15°	225821	257211	283399
20°	223980	256939	281400
25°	224884	250612	269711
30°	223811	233798	244565
35°	209772	199619	201658
40°	186932	154761	151297
45°	170961	115399	108310
50°	161635	80846	73048
55°	148647	54597	45858
60°	129856	31966	25308
65°	122964	20465	14186
70°	111998	14619	8764
75°	92655	10300	6456
80°	72871	5801	3820
85°	64982	3947	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.7	5.4
10°-20°	570.2	15.5
20°-30°	845.3	22.9
30°-40°	846.4	23.0
40°-50°	591.5	16.0
50°-60°	352.0	9.5
60°-70°	183.7	5.0
70°-80°	81.7	2.2
80°-90°	17.8	0.5
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°	1614.2	43.8
0°-40°	2460.6	66.7
0°-60°	3404.1	92.3
0°-90°	3687.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3687.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2104	2104	2104	2104	2104	
5°	1979	2047	2076	2171	2179	186
15°	1776	1865	2022	2196	2228	503
25°	1659	1735	1849	1976	1990	764
35°	1399	1415	1331	1355	1345	867
45°	984	935	664	642	623	764
55°	694	650	255	222	214	616
65°	423	388	70	52	49	418
75°	195	171	22	14	14	211
85°	46	35	3	3	0	52
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°	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6
2.5°	2035.8	2060.2	2035.8	2044.0	2076.5	2046.6	2062.9	2062.9	2054.8	2073.7	2087.3
5°	1978.9	2003.3	1978.9	1989.7	2025.0	1995.1	2014.1	2008.6	2011.4	2027.7	2046.6
7.5°	1922.0	1940.9	1919.2	1932.9	1965.3	1940.9	1957.1	1957.1	1959.9	1984.2	2000.6
10°	1865.0	1881.3	1865.0	1875.9	1911.2	1889.4	1900.3	1903.0	1911.2	1932.9	1957.1
12.5°	1813.4	1827.1	1810.9	1827.1	1856.9	1835.2	1848.8	1851.4	1859.6	1884.1	1911.2
15°	1775.5	1789.2	1772.9	1786.4	1813.4	1797.2	1808.1	1813.4	1818.9	1840.6	1865.0
17.5°	1745.8	1756.6	1743.0	1759.3	1781.0	1762.1	1778.3	1778.3	1786.4	1808.1	1835.2
20°	1713.2	1724.0	1713.2	1726.8	1751.2	1735.0	1748.4	1748.4	1756.6	1781.0	1805.4
22.5°	1683.4	1688.9	1683.4	1694.2	1718.6	1705.1	1713.2	1715.9	1724.0	1745.8	1767.4
25°	1659.0	1669.8	1664.4	1675.2	1691.5	1678.0	1686.1	1688.9	1696.9	1715.9	1735.0
27.5°	1631.9	1637.3	1631.9	1645.4	1659.0	1648.1	1656.3	1653.6	1659.0	1675.2	1691.5
30°	1577.7	1583.1	1583.1	1591.2	1602.1	1596.7	1604.8	1596.7	1602.1	1615.7	1631.9
32.5°	1499.0	1501.8	1504.5	1512.7	1520.7	1512.7	1518.1	1518.1	1518.1	1528.9	1539.8
35°	1398.7	1404.1	1401.5	1406.9	1415.0	1412.3	1412.3	1409.6	1404.1	1409.6	1415.0
37.5°	1284.9	1276.7	1276.7	1284.9	1290.4	1279.5	1284.9	1279.5	1279.5	1282.1	1282.1
40°	1165.6	1157.5	1165.6	1168.4	1171.0	1165.6	1162.9	1157.5	1149.4	1152.1	1146.7
42.5°	1065.4	1059.8	1062.6	1062.6	1065.4	1059.8	1062.6	1051.8	1043.6	1038.2	1030.1
45°	984.0	975.9	984.0	978.6	978.6	975.9	973.2	967.7	956.9	948.8	935.3
47.5°	908.1	908.1	910.7	910.7	910.7	905.4	905.4	894.5	883.7	872.8	853.9
50°	845.7	840.3	851.2	851.2	843.1	840.3	843.1	829.5	821.4	807.8	788.7
52.5°	778.0	778.0	780.7	780.7	778.0	772.5	775.3	764.5	756.3	742.8	723.7
55°	694.0	688.6	696.6	696.6	694.0	691.3	694.0	685.8	677.7	666.9	650.5
57.5°	599.1	596.3	601.7	604.5	599.1	599.1	601.7	593.7	591.0	580.1	563.8
60°	528.5	525.9	531.3	534.1	528.5	528.5	528.5	517.7	512.3	501.4	490.6
62.5°	479.8	477.1	482.5	479.8	477.1	474.3	477.1	466.3	460.9	450.1	439.2
65°	423.0	425.5	428.3	428.3	425.5	423.0	423.0	417.5	412.1	401.3	387.6
67.5°	368.6	368.6	371.4	374.1	371.4	371.4	371.4	363.2	357.8	349.7	333.4
70°	311.8	309.0	317.2	317.2	311.8	314.4	311.8	309.0	303.5	292.8	279.3
72.5°	252.1	252.1	254.9	254.9	252.1	252.1	252.1	249.4	241.2	235.8	222.3
75°	195.2	195.2	197.9	200.6	195.2	195.2	197.9	192.4	187.0	179.0	170.8
77.5°	146.4	143.7	146.4	146.4	143.7	143.7	143.7	141.0	138.2	130.1	122.0
80°	103.0	100.3	103.0	103.0	103.0	100.3	100.3	97.6	97.6	92.1	84.1
82.5°	70.4	67.8	70.4	70.4	70.4	67.8	67.8	67.8	65.0	62.3	57.0
85°	46.1	43.3	43.3	46.1	43.3	43.3	43.3	43.3	40.7	37.9	35.3
87.5°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	19.0	19.0	19.0	16.2
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°	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6
2.5°	2076.5	2071.1	2087.3	2081.9	2084.5	2071.1	2092.7	2081.9	2095.4	2081.9	2109.0
5°	2041.2	2035.8	2060.2	2057.4	2060.2	2049.4	2073.7	2071.1	2087.3	2076.5	2106.2
7.5°	2003.3	1997.9	2025.0	2027.7	2033.2	2022.3	2054.8	2054.8	2071.1	2068.3	2100.9
10°	1959.9	1962.5	1989.7	1995.1	2006.1	2000.6	2030.4	2038.5	2060.2	2057.4	2098.2
12.5°	1919.2	1919.2	1954.5	1965.3	1973.4	1970.7	2006.1	2016.9	2041.2	2046.6	2084.5
15°	1878.6	1881.3	1913.8	1930.1	1940.9	1938.2	1976.2	1989.7	2019.5	2022.3	2068.3
17.5°	1846.0	1843.3	1878.6	1892.1	1908.4	1905.7	1946.3	1962.5	1992.4	2000.6	2044.0
20°	1818.9	1816.2	1848.8	1865.0	1875.9	1873.2	1913.8	1932.9	1959.9	1965.3	2008.6
22.5°	1786.4	1781.0	1813.4	1827.1	1837.9	1835.2	1870.4	1884.1	1911.2	1916.5	1957.1
25°	1748.4	1743.0	1772.9	1781.0	1789.2	1783.8	1813.4	1821.7	1843.3	1848.8	1889.4
27.5°	1705.1	1691.5	1715.9	1715.9	1721.3	1713.2	1735.0	1743.0	1762.1	1762.1	1800.0
30°	1637.3	1618.4	1631.9	1629.2	1631.9	1621.0	1634.7	1637.3	1650.9	1648.1	1675.2
32.5°	1542.4	1515.3	1523.5	1515.3	1507.2	1491.0	1507.2	1501.8	1512.7	1501.8	1526.1
35°	1412.3	1385.2	1382.5	1371.7	1363.6	1350.0	1350.0	1336.5	1339.1	1331.0	1347.3
37.5°	1271.4	1236.1	1230.7	1209.0	1195.5	1179.2	1179.2	1168.4	1154.7	1149.4	1162.9
40°	1133.0	1095.1	1081.7	1046.4	1032.7	1016.5	1005.7	992.2	986.8	965.0	975.9
42.5°	1013.8	973.2	943.4	905.4	891.8	867.4	851.2	834.9	826.8	802.4	813.3
45°	913.5	864.8	832.3	783.4	764.5	737.4	712.9	694.0	675.0	664.2	658.7
47.5°	829.5	778.0	734.6	680.4	650.5	626.2	593.7	574.6	550.3	536.7	528.5
50°	759.1	702.1	653.3	591.0	561.2	534.1	496.1	466.3	444.6	423.0	417.5
52.5°	696.6	637.1	582.8	512.3	477.1	444.6	403.9	371.4	352.3	328.1	325.3
55°	623.4	572.1	512.3	439.2	403.9	371.4	328.1	295.5	271.1	254.9	249.4
57.5°	544.9	496.1	439.2	366.0	330.7	295.5	254.9	225.0	203.3	189.8	187.0
60°	471.7	425.5	371.4	298.2	262.9	233.1	189.8	159.9	141.0	130.1	124.7
62.5°	417.5	374.1	322.6	254.9	222.3	192.4	151.9	124.7	108.3	97.6	92.1
65°	366.0	322.6	276.5	214.1	187.0	159.9	122.0	97.6	81.3	70.4	65.0
67.5°	311.8	273.9	230.3	179.0	151.9	130.1	97.6	75.9	62.3	54.2	48.8
70°	257.4	222.3	187.0	143.7	124.7	103.0	75.9	59.7	46.1	40.7	35.3
72.5°	203.3	176.2	146.4	111.1	94.9	81.3	59.7	43.3	35.3	29.9	24.4
75°	151.9	132.9	108.3	84.1	70.4	59.7	43.3	32.5	27.1	21.7	19.0
77.5°	108.3	92.1	75.9	57.0	51.5	43.3	29.9	24.4	19.0	13.6	10.9
80°	73.2	65.0	51.5	40.7	32.5	29.9	21.7	16.2	10.9	8.2	8.2
82.5°	48.8	40.7	32.5	24.4	21.7	19.0	13.6	10.9	8.2	5.4	5.4
85°	29.9	24.4	19.0	13.6	13.6	10.9	8.2	5.4	2.8	2.8	2.8
87.5°	13.6	10.9	8.2	5.4	5.4	2.8	2.8	2.8	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°	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6
2.5°	2130.6	2114.4	2103.6	2117.1	2122.5	2114.4	2122.5	2136.1	2149.7	2152.4	2114.4
5°	2133.4	2117.1	2111.6	2127.9	2130.6	2127.9	2136.1	2155.2	2171.4	2176.8	2138.8
7.5°	2133.4	2122.5	2119.8	2138.8	2141.5	2138.8	2152.4	2174.1	2190.3	2201.1	2163.2
10°	2127.9	2122.5	2125.3	2141.5	2147.0	2147.0	2166.0	2190.3	2206.5	2217.4	2179.4
12.5°	2119.8	2119.8	2119.8	2138.8	2144.3	2147.0	2163.2	2195.7	2206.5	2222.8	2184.9
15°	2106.2	2106.2	2106.2	2125.3	2133.4	2133.4	2152.4	2182.2	2195.7	2212.0	2174.1
17.5°	2081.9	2081.9	2084.5	2100.9	2109.0	2109.0	2127.9	2160.5	2168.6	2187.6	2149.7
20°	2046.6	2046.6	2049.4	2065.6	2073.7	2068.3	2092.7	2119.8	2127.9	2144.3	2106.2
22.5°	1995.1	1995.1	1995.1	2011.4	2016.9	2014.1	2038.5	2062.9	2062.9	2084.5	2044.0
25°	1919.2	1924.6	1919.2	1935.4	1940.9	1938.2	1959.9	1981.6	1976.2	2000.6	1959.9
27.5°	1827.1	1824.3	1824.3	1837.9	1837.9	1835.2	1851.4	1875.9	1870.4	1886.7	1848.8
30°	1699.7	1707.8	1694.2	1713.2	1705.1	1699.7	1710.5	1732.2	1724.0	1737.6	1707.8
32.5°	1553.2	1542.4	1542.4	1542.4	1547.8	1534.3	1545.2	1556.0	1547.8	1561.4	1528.9
35°	1360.8	1363.6	1355.4	1358.1	1360.8	1344.6	1355.4	1366.2	1355.4	1363.6	1333.7
37.5°	1168.4	1171.0	1152.1	1162.9	1152.1	1146.7	1157.5	1162.9	1152.1	1160.2	1127.7
40°	975.9	970.5	967.7	967.7	970.5	956.9	965.0	973.2	965.0	970.5	940.6
42.5°	807.8	805.2	799.7	802.4	794.2	791.5	794.2	802.4	794.2	799.7	778.0
45°	661.4	656.0	647.9	650.5	650.5	637.1	645.1	650.5	642.5	645.1	626.2
47.5°	525.9	517.7	517.7	515.1	515.1	509.6	517.7	515.1	506.9	512.3	493.4
50°	409.3	403.9	403.9	403.9	403.9	395.8	398.5	403.9	395.8	395.8	384.9
52.5°	319.9	311.8	306.3	306.3	306.3	303.5	303.5	306.3	298.2	298.2	295.5
55°	241.2	238.5	230.3	230.3	230.3	222.3	225.0	225.0	222.3	222.3	214.1
57.5°	179.0	170.8	165.3	165.3	159.9	159.9	157.3	159.9	154.5	154.5	149.1
60°	119.2	113.8	111.1	108.3	108.3	105.8	108.3	105.8	105.8	103.0	100.3
62.5°	86.7	81.3	75.9	75.9	75.9	73.2	73.2	73.2	73.2	73.2	70.4
65°	62.3	57.0	57.0	54.2	54.2	51.5	51.5	51.5	51.5	51.5	48.8
67.5°	43.3	40.7	37.9	37.9	37.9	37.9	37.9	37.9	35.3	35.3	35.3
70°	32.5	29.9	27.1	27.1	27.1	27.1	27.1	24.4	27.1	27.1	24.4
72.5°	21.7	21.7	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
75°	16.2	16.2	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
77.5°	10.9	10.9	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
80°	8.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
82.5°	5.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	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: P858229

CATALOG NUMBER: LX4C45D010 EX4C459830 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6	2103.6
2.5°	2155.2	2152.4	2147.0	2155.2	2133.4	2125.3	2122.5	2147.0
5°	2184.9	2179.4	2179.4	2187.6	2163.2	2157.7	2152.4	2179.4
7.5°	2212.0	2206.5	2206.5	2214.7	2193.1	2187.6	2182.2	2209.3
10°	2228.2	2228.2	2228.2	2233.6	2214.7	2209.3	2206.5	2233.6
12.5°	2236.4	2236.4	2233.6	2244.5	2220.2	2220.2	2214.7	2241.8
15°	2225.6	2225.6	2225.6	2233.6	2212.0	2206.5	2206.5	2228.2
17.5°	2198.5	2198.5	2195.7	2203.9	2179.4	2179.4	2176.8	2201.1
20°	2157.7	2157.7	2152.4	2163.2	2138.8	2130.6	2127.9	2152.4
22.5°	2092.7	2090.0	2087.3	2092.7	2071.1	2065.6	2062.9	2084.5
25°	2008.6	2006.1	2000.6	2006.1	1981.6	1973.4	1973.4	1989.7
27.5°	1889.4	1889.4	1881.3	1889.4	1862.2	1859.6	1856.9	1875.9
30°	1743.0	1732.2	1726.8	1737.6	1710.5	1710.5	1705.1	1724.0
32.5°	1561.4	1550.6	1547.8	1553.2	1528.9	1520.7	1531.6	1542.4
35°	1352.7	1355.4	1344.6	1344.6	1322.9	1325.5	1328.2	1344.6
37.5°	1152.1	1146.7	1143.9	1146.7	1130.5	1125.0	1119.6	1135.8
40°	965.0	951.5	948.8	948.8	935.3	932.6	935.3	943.4
42.5°	788.7	786.2	775.3	780.7	767.1	772.5	769.8	769.8
45°	637.1	639.7	628.9	637.1	626.2	618.1	618.1	623.4
47.5°	504.2	504.2	501.4	501.4	493.4	496.1	490.6	498.8
50°	390.3	390.3	384.9	387.6	382.2	382.2	379.4	382.2
52.5°	298.2	295.5	295.5	292.8	287.3	290.1	292.8	287.3
55°	216.9	219.5	214.1	216.9	211.4	214.1	211.4	214.1
57.5°	149.1	151.9	146.4	151.9	146.4	149.1	146.4	146.4
60°	103.0	103.0	100.3	103.0	100.3	100.3	97.6	103.0
62.5°	70.4	70.4	70.4	70.4	70.4	67.8	70.4	70.4
65°	51.5	48.8	48.8	48.8	48.8	48.8	48.8	48.8
67.5°	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3
70°	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
72.5°	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
75°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
77.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
80°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	2.8	2.8	2.8	0.0	2.8	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



Report Generated By 670246072 / DESKTOP-50001EG





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















(END OF REPORT)