

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: METALUX

Report Number: P233282

Luminaire Tested: **4VT3-LD5-8-P-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233282  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1709-268-6)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4VT3-LD5-8-P-UNV-L850-CD1-U  
Description: 4FT VT3 GENERAL APPLICATION, 8000LM  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

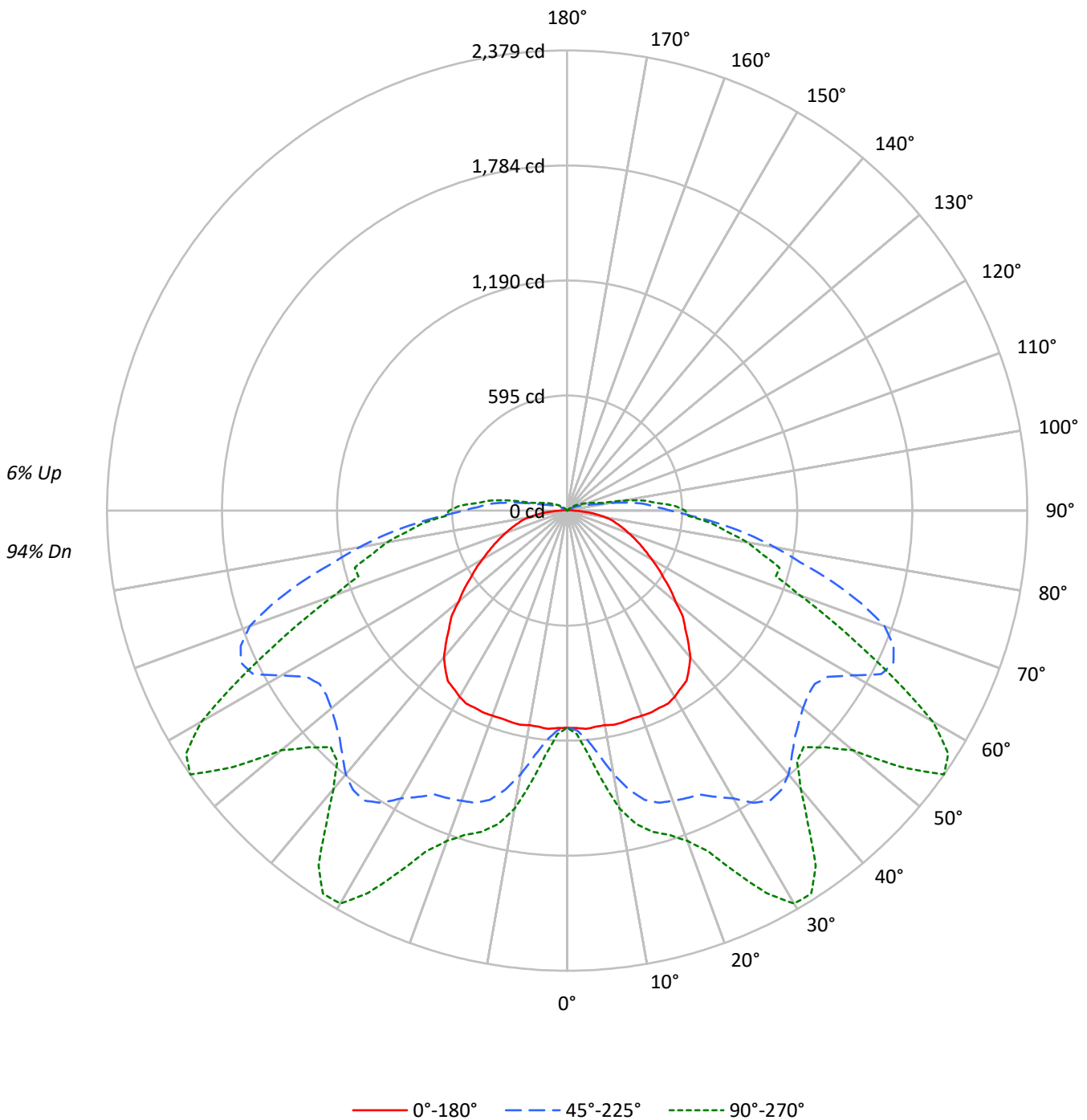
Lumens per Lamp: N/A  
Luminaire Lumens: 8671.0 lumens  
Efficiency: N/A  
Efficacy: 125.6 lumens/watt  
Spacing Criteria (0/90/45): 1.45 / 2.17 / 2.13  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.17')  
CIE Type: Direct

Input Watts (W): 69.05  
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	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	103	96	90	85	99	93	88	83	88	83	79	82	79	75	78	75	72	69
2	91	81	72	65	88	78	70	64	74	67	61	69	64	59	65	60	56	54
3	82	69	59	52	79	67	58	51	63	55	49	59	53	47	56	50	45	43
4	74	60	50	42	71	58	49	41	55	47	40	52	44	39	49	42	37	35
5	68	53	43	35	65	51	42	35	48	40	34	46	38	33	43	37	32	29
6	62	47	37	30	60	46	36	29	43	35	29	41	33	28	39	32	27	25
7	57	42	33	26	55	41	32	25	39	31	25	37	30	24	35	28	23	21
8	53	38	29	23	51	37	28	22	35	27	22	33	26	21	32	25	21	18
9	49	35	26	20	48	34	25	20	32	25	19	31	24	19	29	23	18	16
10	46	32	23	18	44	31	23	18	30	22	17	28	22	17	27	21	16	14

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

	0°	45°	90°
0°	7247	7247	7247
5°	7317	7495	7924
10°	7333	8599	9582
15°	7477	9552	10388
20°	7640	9853	10901
25°	7866	10078	12392
30°	8093	10855	14215
35°	8241	11838	13802
40°	8071	11893	11863
45°	7575	11576	11279
50°	7002	11650	13110
55°	6494	12164	17045
60°	6104	14275	16664
65°	5840	17033	13884
70°	5723	17744	11507
75°	5807	16364	11382
80°	6116	14641	10772
85°	5562	12858	9944



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.5	1.4
10°-20°	421.1	4.9
20°-30°	760.1	8.8
30°-40°	1074.2	12.4
40°-50°	1147.5	13.2
50°-60°	1347.5	15.5
60°-70°	1362.7	15.7
70°-80°	1112.2	12.8
80°-90°	763.2	8.8
90°-100°	385.5	4.4
100°-110°	114.3	1.3
110°-120°	44.9	0.5
120°-130°	15.9	0.2
130°-140°	2.3	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°	1300.7	15.0
0°-40°	2375.0	27.4
0°-60°	4870.0	56.2
0°-90°	8108.1	93.5
90°-120°	544.7	6.3
90°-150°	562.9	6.5
90°-180°	563.0	6.5
0°-180°	8671.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1122	1122	1122	1122	1122	
5°	1133	1147	1188	1242	1265	108
15°	1131	1301	1548	1684	1720	320
25°	1125	1370	1620	1921	2063	521
35°	1076	1268	1830	2220	2241	666
45°	864	1134	1663	1760	1729	668
55°	611	893	1562	2153	2379	551
65°	416	757	1861	1834	1688	414
75°	269	994	1420	1142	1137	286
85°	111	851	793	751	748	110
90°	31	630	534	586	610	21
95°	22	318	400	462	460	16
105°	11	33	116	156	153	11
115°	4	4	46	81	81	4
125°	2	1	12	37	39	2
135°	0	0	0	6	6	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P233282

CATALOG NUMBER: 4VT3-LD5-8-P-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1
2.5°	1125.3	1130.7	1132.8	1127.4	1130.7	1132.8	1130.7	1133.9	1136.0	1139.3	1137.1
5°	1132.8	1131.7	1137.1	1131.7	1138.2	1146.8	1151.1	1162.9	1168.3	1182.3	1187.7
7.5°	1127.4	1135.0	1135.0	1140.3	1152.2	1184.5	1188.8	1209.2	1233.9	1257.6	1274.8
10°	1126.4	1135.0	1150.0	1165.1	1185.5	1212.4	1230.7	1268.4	1314.6	1349.1	1383.5
12.5°	1133.9	1137.1	1162.9	1183.4	1224.3	1253.3	1277.0	1335.1	1384.6	1428.7	1477.1
15°	1130.7	1139.3	1168.3	1203.8	1261.9	1300.6	1325.4	1396.4	1456.6	1499.7	1548.1
17.5°	1126.4	1142.5	1179.1	1225.3	1293.1	1342.6	1369.5	1439.4	1496.4	1552.4	1583.6
20°	1128.5	1146.8	1188.8	1252.2	1318.9	1366.3	1394.2	1466.3	1522.3	1569.6	1596.5
22.5°	1130.7	1151.1	1193.1	1265.1	1328.6	1377.0	1406.1	1471.7	1521.2	1576.0	1609.4
25°	1125.3	1147.9	1198.4	1257.6	1335.1	1369.5	1399.6	1463.1	1515.8	1579.3	1620.2
27.5°	1126.4	1143.6	1190.9	1255.5	1315.7	1363.0	1379.2	1451.3	1516.9	1587.9	1668.6
30°	1111.3	1131.7	1183.4	1228.6	1287.7	1331.8	1356.6	1436.2	1522.3	1615.8	1718.0
32.5°	1090.9	1112.4	1158.6	1190.9	1260.8	1298.5	1334.0	1434.0	1545.9	1663.2	1791.2
35°	1075.8	1082.3	1104.8	1140.3	1218.9	1268.4	1313.5	1434.0	1565.3	1694.4	1829.9
37.5°	1033.8	1037.1	1056.4	1109.1	1180.2	1250.1	1300.6	1435.1	1572.8	1698.7	1819.2
40°	990.8	991.9	1012.3	1065.0	1145.7	1223.2	1279.1	1421.1	1551.3	1667.5	1780.4
42.5°	926.3	934.9	963.9	1016.6	1119.9	1185.5	1250.1	1377.0	1498.6	1612.6	1719.1
45°	863.9	875.7	899.4	961.8	1068.3	1133.9	1197.4	1321.1	1433.0	1556.7	1663.2
47.5°	812.2	811.2	842.3	911.2	1005.9	1073.6	1131.7	1250.1	1373.8	1510.4	1623.4
50°	731.5	748.8	782.1	851.0	940.2	1014.5	1066.1	1183.4	1316.8	1453.4	1591.1
52.5°	673.4	684.2	724.0	787.5	881.1	942.4	1002.6	1132.8	1278.0	1444.8	1568.5
55°	611.1	625.0	665.9	729.4	833.7	892.9	954.2	1099.5	1268.4	1433.0	1562.1
57.5°	560.5	571.2	608.9	679.9	786.4	856.3	927.3	1075.8	1255.5	1423.3	1598.6
60°	506.7	517.5	565.9	636.9	749.8	823.0	890.8	1056.4	1251.2	1463.1	1703.0
62.5°	458.3	473.4	517.5	591.7	705.7	778.9	857.4	1050.0	1300.6	1579.3	1831.0
65°	416.3	432.5	480.9	555.1	667.0	757.4	852.0	1105.9	1399.6	1672.9	1861.1
67.5°	376.5	393.7	443.2	519.6	661.6	774.6	903.7	1197.4	1470.6	1709.4	1826.7
70°	337.8	359.3	412.0	518.5	717.6	864.9	996.2	1260.8	1507.2	1675.0	1746.0
72.5°	303.4	329.2	404.5	556.2	809.0	949.9	1068.3	1284.5	1468.5	1589.0	1592.2
75°	268.9	308.8	419.6	620.7	868.2	994.0	1102.7	1264.1	1398.5	1456.6	1420.1
77.5°	239.9	299.1	443.2	650.9	892.9	1011.3	1095.2	1214.6	1286.7	1287.7	1232.9
80°	203.3	277.6	436.8	650.9	880.0	989.7	1061.8	1126.4	1145.7	1130.7	1090.9
82.5°	159.2	242.1	408.8	617.5	838.0	934.9	989.7	1017.7	1004.8	988.7	944.6
85°	110.8	194.7	361.5	573.4	770.3	851.0	896.1	896.1	862.8	815.5	792.9
87.5°	64.5	142.0	310.9	505.6	684.2	756.3	788.6	736.9	685.3	660.5	643.3
90°	31.2	94.7	250.7	445.4	589.5	630.4	631.5	563.7	528.2	532.5	533.6
92.5°	25.8	55.9	196.9	333.5	437.8	458.3	458.3	430.3	422.8	431.4	454.0
95°	21.5	23.7	103.3	221.6	299.1	318.4	329.2	335.6	356.1	380.8	400.2
97.5°	18.3	18.3	32.3	119.4	200.1	231.3	252.8	268.9	288.3	299.1	313.1
100°	15.1	15.1	17.2	39.8	111.9	140.9	157.1	167.8	185.0	203.3	223.8
102.5°	12.9	12.9	12.9	20.4	42.0	54.9	68.9	92.5	111.9	135.6	153.8
105°	10.8	10.8	10.8	12.9	25.8	33.3	44.1	63.5	80.7	101.1	116.2
107.5°	8.6	8.6	8.6	8.6	17.2	24.7	31.2	47.3	65.6	81.8	93.6
110°	6.5	6.5	6.5	7.5	10.8	16.1	21.5	35.5	49.5	63.5	76.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	5.4	5.4	5.4	5.4	6.5	8.6	14.0	25.8	36.6	48.4	59.2
115°	4.3	4.3	4.3	4.3	4.3	4.3	6.5	16.1	25.8	34.4	46.3
117.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	8.6	18.3	26.9	34.4
120°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.2	10.8	19.4	26.9
122.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	4.3	11.8	19.4
125°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	5.4	11.8
127.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	4.3
130°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°
0°	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1	1122.1
2.5°	1138.2	1141.4	1143.6	1154.3	1147.9	1159.7	1149.0	1147.9	1153.3	1156.5
5°	1202.7	1218.9	1231.8	1246.9	1242.5	1250.1	1249.0	1249.0	1272.7	1265.1
7.5°	1308.2	1324.3	1348.0	1371.6	1366.3	1394.2	1397.5	1401.8	1400.7	1412.5
10°	1416.8	1448.0	1471.7	1510.4	1507.2	1523.3	1544.8	1538.4	1555.6	1564.2
12.5°	1514.7	1550.2	1587.9	1623.4	1621.2	1630.9	1640.6	1647.0	1656.7	1661.0
15°	1587.9	1622.3	1654.6	1686.9	1683.6	1696.5	1701.9	1707.3	1720.2	1720.2
17.5°	1633.1	1655.7	1685.8	1721.3	1734.2	1740.6	1734.2	1752.5	1765.4	1757.9
20°	1642.7	1676.1	1723.4	1742.8	1764.3	1776.1	1782.6	1805.2	1804.1	1817.0
22.5°	1662.1	1707.3	1751.4	1811.6	1817.0	1846.1	1865.4	1889.1	1903.1	1906.3
25°	1694.4	1766.5	1831.0	1897.7	1921.4	1956.9	1997.8	2026.8	2050.5	2063.4
27.5°	1761.1	1850.4	1948.3	2030.0	2044.0	2087.0	2146.2	2189.2	2211.8	2228.0
30°	1846.1	1951.5	2052.6	2138.7	2178.5	2215.1	2269.9	2291.5	2328.0	2346.3
32.5°	1907.4	2012.8	2120.4	2202.2	2239.8	2273.2	2304.4	2323.7	2331.3	2348.5
35°	1936.4	2036.5	2147.3	2193.6	2220.4	2231.2	2245.2	2242.0	2243.0	2240.9
37.5°	1921.4	2013.9	2081.7	2119.3	2124.7	2122.5	2106.4	2069.8	2042.9	2045.1
40°	1881.6	1959.0	2002.1	2001.0	1988.1	1968.7	1932.1	1885.9	1868.7	1879.4
42.5°	1832.1	1882.6	1889.1	1875.1	1843.9	1840.7	1789.1	1774.0	1756.8	1757.9
45°	1769.7	1798.7	1808.4	1778.3	1760.0	1756.8	1733.1	1724.5	1727.7	1728.8
47.5°	1712.7	1743.9	1749.2	1741.7	1737.4	1743.9	1752.5	1774.0	1776.1	1811.6
50°	1677.2	1710.5	1747.1	1775.1	1785.8	1821.3	1869.7	1892.3	1919.2	1926.8
52.5°	1669.6	1726.7	1814.9	1884.8	1936.4	1983.8	2041.9	2124.7	2151.6	2177.4
55°	1691.2	1812.7	1953.6	2067.7	2152.7	2209.7	2289.3	2328.0	2356.0	2378.6
57.5°	1791.2	1981.6	2152.7	2233.4	2259.2	2288.2	2303.3	2314.0	2322.6	2335.6
60°	1952.6	2090.3	2181.7	2221.5	2231.2	2236.6	2226.9	2208.6	2191.4	2183.9
62.5°	2002.1	2082.7	2119.3	2102.1	2084.9	2070.9	1989.2	1954.7	1921.4	1931.1
65°	1970.9	1985.9	1944.0	1884.8	1834.2	1823.5	1750.3	1721.3	1678.2	1687.9
67.5°	1848.2	1798.7	1739.6	1661.0	1636.3	1599.7	1537.3	1510.4	1488.9	1473.8
70°	1725.6	1628.8	1550.2	1464.2	1437.3	1409.3	1331.8	1295.3	1284.5	1279.1
72.5°	1523.3	1429.7	1339.4	1266.2	1245.8	1211.3	1176.9	1143.6	1130.7	1131.7
75°	1317.9	1231.8	1173.7	1140.3	1142.5	1138.2	1131.7	1124.2	1128.5	1137.1
77.5°	1164.0	1116.7	1110.2	1115.6	1110.2	1101.6	1060.7	1044.6	1025.2	1028.5
80°	1054.3	1030.6	991.9	972.5	980.1	971.4	962.8	941.3	949.9	946.7
82.5°	914.4	896.1	880.0	864.9	866.0	858.5	834.8	828.4	816.5	833.7
85°	783.2	757.4	753.1	747.7	750.9	747.7	746.6	738.0	740.1	747.7
87.5°	649.8	647.6	646.6	641.2	637.9	635.8	632.6	629.3	629.3	628.3
90°	539.0	546.5	565.9	575.6	586.3	592.8	605.7	606.8	611.1	610.0
92.5°	477.7	500.2	531.4	549.7	556.2	557.3	565.9	561.6	559.4	558.3
95°	420.6	430.3	443.2	451.8	461.5	462.6	463.7	458.3	459.4	460.4
97.5°	328.1	342.1	358.2	376.5	385.1	384.1	394.8	393.7	393.7	399.1
100°	242.1	260.3	272.2	292.6	288.3	284.0	291.5	287.2	305.5	299.1
102.5°	168.9	175.4	186.1	188.3	189.3	187.2	189.3	185.0	185.0	182.9
105°	129.1	138.8	148.5	154.9	156.0	156.0	157.1	153.8	153.8	152.8
107.5°	106.5	116.2	123.7	128.0	133.4	132.3	134.5	133.4	134.5	132.3
110°	86.1	95.7	104.4	108.7	113.0	113.0	114.0	114.0	113.0	113.0





TEST NUMBER: P233282

CATALOG NUMBER: 4VT3-LD5-8-P-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	69.9	78.5	85.0	91.4	94.7	95.7	95.7	96.8	96.8	96.8
115°	54.9	63.5	72.1	77.5	80.7	81.8	82.8	81.8	80.7	80.7
117.5°	43.0	50.6	58.1	64.5	67.8	68.9	71.0	69.9	69.9	68.9
120°	34.4	40.9	48.4	53.8	55.9	58.1	60.2	59.2	58.1	59.2
122.5°	26.9	32.3	38.7	44.1	46.3	47.3	48.4	47.3	48.4	47.3
125°	19.4	24.7	30.1	34.4	36.6	38.7	39.8	38.7	38.7	38.7
127.5°	10.8	16.1	21.5	25.8	28.0	29.0	31.2	30.1	29.0	29.0
130°	3.2	9.7	15.1	18.3	20.4	22.6	22.6	22.6	21.5	20.4
132.5°	0.0	2.2	7.5	11.8	14.0	15.1	15.1	15.1	14.0	14.0
135°	0.0	0.0	1.1	4.3	6.5	7.5	8.6	7.5	7.5	6.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)