

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: P233279

Luminaire Tested: **4VRVT3-LD5-6-P-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233279  
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: 4VRVT3-LD5-6-P-UNV-L850-CD1-U  
Description: 4FT VRVT3 GENERAL APPLICATION, 6000LM  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6509.0 lumens  
Efficiency: N/A  
Efficacy: 132.0 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

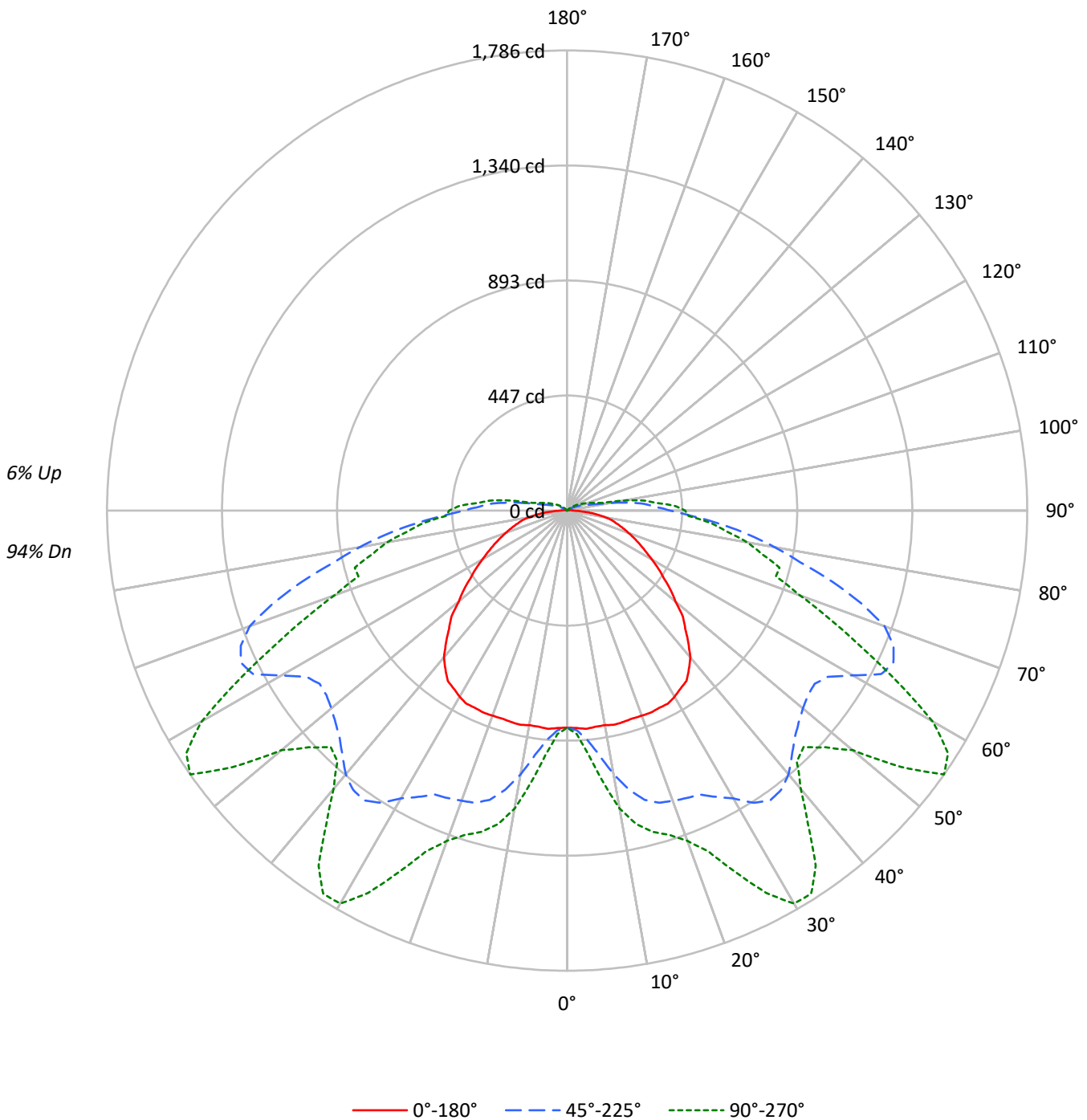
Input Watts (W): 49.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	5440	5440	5440
5°	5493	5626	5949
10°	5504	6455	7193
15°	5612	7170	7798
20°	5735	7396	8183
25°	5905	7565	9302
30°	6075	8149	10671
35°	6187	8887	10361
40°	6059	8928	8905
45°	5686	8689	8467
50°	5256	8746	9841
55°	4875	9131	12795
60°	4583	10716	12509
65°	4384	12786	10423
70°	4297	13320	8638
75°	4360	12283	8545
80°	4591	10991	8087
85°	4176	9652	7465



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.7	1.4
10°-20°	316.1	4.9
20°-30°	570.6	8.8
30°-40°	806.4	12.4
40°-50°	861.4	13.2
50°-60°	1011.5	15.5
60°-70°	1022.9	15.7
70°-80°	834.9	12.8
80°-90°	572.9	8.8
90°-100°	289.4	4.4
100°-110°	85.8	1.3
110°-120°	33.7	0.5
120°-130°	11.9	0.2
130°-140°	1.7	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°	976.4	15.0
0°-40°	1782.8	27.4
0°-60°	3655.7	56.2
0°-90°	6086.4	93.5
90°-120°	408.9	6.3
90°-150°	422.5	6.5
90°-180°	423.0	6.5
0°-180°	6509.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	850	861	892	933	950	81
15°	849	976	1162	1264	1291	240
25°	845	1028	1216	1442	1549	391
35°	808	952	1374	1667	1682	500
45°	648	851	1248	1321	1298	501
55°	459	670	1173	1616	1786	413
65°	312	568	1397	1377	1267	311
75°	202	746	1066	858	854	215
85°	83	639	595	564	561	82
90°	23	473	401	440	458	16
95°	16	239	300	346	346	12
105°	8	25	87	117	115	9
115°	3	3	35	61	61	3
125°	2	1	9	28	29	1
135°	0	0	0	5	5	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: P233279

CATALOG NUMBER: 4VRVT3-LD5-6-P-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3
2.5°	844.7	848.7	850.4	846.3	848.7	850.4	848.7	851.2	852.8	855.2	853.6
5°	850.4	849.6	853.6	849.6	854.4	860.9	864.1	873.0	877.0	887.5	891.5
7.5°	846.3	852.0	852.0	856.0	864.9	889.1	892.4	907.7	926.3	944.0	957.0
10°	845.5	852.0	863.3	874.6	889.9	910.1	923.9	952.1	986.8	1012.7	1038.5
12.5°	851.2	853.6	873.0	888.3	919.0	940.8	958.6	1002.2	1039.3	1072.4	1108.8
15°	848.7	855.2	877.0	903.7	947.3	976.3	994.9	1048.2	1093.4	1125.7	1162.1
17.5°	845.5	857.6	885.1	919.8	970.7	1007.8	1028.0	1080.5	1123.3	1165.3	1188.7
20°	847.1	860.9	892.4	940.0	990.1	1025.6	1046.6	1100.7	1142.7	1178.2	1198.4
22.5°	848.7	864.1	895.6	949.7	997.3	1033.7	1055.5	1104.7	1141.9	1183.1	1208.1
25°	844.7	861.7	899.6	944.0	1002.2	1028.0	1050.6	1098.3	1137.9	1185.5	1216.2
27.5°	845.5	858.4	894.0	942.4	987.6	1023.2	1035.3	1089.4	1138.7	1192.0	1252.5
30°	834.2	849.6	888.3	922.2	966.7	999.8	1018.3	1078.1	1142.7	1213.0	1289.7
32.5°	818.9	835.0	869.7	894.0	946.5	974.7	1001.4	1076.5	1160.5	1248.5	1344.6
35°	807.6	812.4	829.4	856.0	915.0	952.1	986.0	1076.5	1175.0	1271.9	1373.7
37.5°	776.1	778.5	793.0	832.6	885.9	938.4	976.3	1077.3	1180.7	1275.1	1365.6
40°	743.8	744.6	759.9	799.5	860.1	918.2	960.2	1066.8	1164.5	1251.7	1336.5
42.5°	695.3	701.8	723.6	763.1	840.7	889.9	938.4	1033.7	1124.9	1210.5	1290.5
45°	648.5	657.4	675.1	722.0	801.9	851.2	898.8	991.7	1075.7	1168.5	1248.5
47.5°	609.7	608.9	632.3	684.0	755.1	805.9	849.6	938.4	1031.3	1133.8	1218.6
50°	549.1	562.1	587.1	638.8	705.8	761.5	800.3	888.3	988.5	1091.0	1194.4
52.5°	505.5	513.6	543.5	591.1	661.4	707.4	752.6	850.4	959.4	1084.6	1177.4
55°	458.7	469.2	499.9	547.5	625.9	670.3	716.3	825.3	952.1	1075.7	1172.6
57.5°	420.7	428.8	457.1	510.4	590.3	642.8	696.1	807.6	942.4	1068.4	1200.0
60°	380.4	388.4	424.8	478.1	562.9	617.8	668.7	793.0	939.2	1098.3	1278.4
62.5°	344.0	355.3	388.4	444.2	529.8	584.7	643.6	788.2	976.3	1185.5	1374.5
65°	312.5	324.6	361.0	416.7	500.7	568.5	639.6	830.2	1050.6	1255.8	1397.1
67.5°	282.6	295.6	332.7	390.1	496.7	581.4	678.4	898.8	1103.9	1283.2	1371.2
70°	253.6	269.7	309.3	389.2	538.6	649.3	747.8	946.5	1131.4	1257.4	1310.7
72.5°	227.7	247.1	303.6	417.5	607.3	713.1	801.9	964.2	1102.3	1192.8	1195.2
75°	201.9	231.8	314.9	466.0	651.7	746.2	827.8	948.9	1049.8	1093.4	1066.0
77.5°	180.1	224.5	332.7	488.6	670.3	759.1	822.1	911.7	965.8	966.7	925.5
80°	152.6	208.4	327.9	488.6	660.6	743.0	797.1	845.5	860.1	848.7	818.9
82.5°	119.5	181.7	306.9	463.5	629.1	701.8	743.0	764.0	754.3	742.1	709.0
85°	83.2	146.2	271.3	430.4	578.2	638.8	672.7	672.7	647.7	612.1	595.2
87.5°	48.5	106.6	233.4	379.6	513.6	567.7	591.9	553.2	514.4	495.8	482.9
90°	23.4	71.1	188.2	334.3	442.5	473.2	474.0	423.2	396.5	399.7	400.6
92.5°	19.4	42.0	147.8	250.3	328.7	344.0	344.0	323.0	317.4	323.8	340.8
95°	16.2	17.8	77.5	166.4	224.5	239.0	247.1	252.0	267.3	285.9	300.4
97.5°	13.7	13.7	24.2	89.6	150.2	173.6	189.8	201.9	216.4	224.5	235.0
100°	11.3	11.3	12.9	29.9	84.0	105.8	117.9	126.0	138.9	152.6	168.0
102.5°	9.7	9.7	9.7	15.3	31.5	41.2	51.7	69.5	84.0	101.8	115.5
105°	8.1	8.1	8.1	9.7	19.4	25.0	33.1	47.6	60.6	75.9	87.2
107.5°	6.5	6.5	6.5	6.5	12.9	18.6	23.4	35.5	49.3	61.4	70.3
110°	4.8	4.8	4.8	5.7	8.1	12.1	16.2	26.6	37.1	47.6	57.3



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CATALOG NUMBER: 4VRVT3-LD5-6-P-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	4.0	4.0	4.0	4.0	4.8	6.5	10.5	19.4	27.5	36.3	44.4
115°	3.2	3.2	3.2	3.2	3.2	3.2	4.8	12.1	19.4	25.8	34.7
117.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	6.5	13.7	20.2	25.8
120°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	8.1	14.5	20.2
122.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	3.2	8.9	14.5
125°	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	4.0	8.9
127.5°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	3.2
130°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.8	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°	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3	842.3
2.5°	854.4	856.8	858.4	866.5	861.7	870.6	862.5	861.7	865.7	868.1
5°	902.9	915.0	924.7	936.0	932.7	938.4	937.6	937.6	955.3	949.7
7.5°	982.0	994.1	1011.9	1029.6	1025.6	1046.6	1049.0	1052.3	1051.4	1060.3
10°	1063.6	1087.0	1104.7	1133.8	1131.4	1143.5	1159.7	1154.8	1167.7	1174.2
12.5°	1137.0	1163.7	1192.0	1218.6	1217.0	1224.3	1231.5	1236.4	1243.6	1246.9
15°	1192.0	1217.8	1242.0	1266.3	1263.8	1273.5	1277.6	1281.6	1291.3	1291.3
17.5°	1225.9	1242.8	1265.4	1292.1	1301.8	1306.6	1301.8	1315.5	1325.2	1319.6
20°	1233.1	1258.2	1293.7	1308.3	1324.4	1333.3	1338.1	1355.1	1354.3	1364.0
22.5°	1247.7	1281.6	1314.7	1359.9	1364.0	1385.8	1400.3	1418.1	1428.6	1431.0
25°	1271.9	1326.0	1374.5	1424.5	1442.3	1469.0	1499.6	1521.4	1539.2	1548.9
27.5°	1322.0	1389.0	1462.5	1523.9	1534.4	1566.7	1611.1	1643.4	1660.3	1672.5
30°	1385.8	1464.9	1540.8	1605.4	1635.3	1662.8	1704.0	1720.1	1747.6	1761.3
32.5°	1431.8	1510.9	1591.7	1653.1	1681.3	1706.4	1729.8	1744.3	1750.0	1762.9
35°	1453.6	1528.7	1611.9	1646.6	1666.8	1674.9	1685.4	1683.0	1683.8	1682.2
37.5°	1442.3	1511.8	1562.6	1590.9	1594.9	1593.3	1581.2	1553.7	1533.6	1535.2
40°	1412.4	1470.6	1502.9	1502.1	1492.4	1477.8	1450.4	1415.7	1402.7	1410.8
42.5°	1375.3	1413.2	1418.1	1407.6	1384.2	1381.7	1343.0	1331.7	1318.7	1319.6
45°	1328.4	1350.2	1357.5	1334.9	1321.2	1318.7	1301.0	1294.5	1296.9	1297.8
47.5°	1285.6	1309.1	1313.1	1307.4	1304.2	1309.1	1315.5	1331.7	1333.3	1359.9
50°	1259.0	1284.0	1311.5	1332.5	1340.6	1367.2	1403.5	1420.5	1440.7	1446.3
52.5°	1253.3	1296.1	1362.4	1414.8	1453.6	1489.1	1532.8	1594.9	1615.1	1634.5
55°	1269.5	1360.7	1466.5	1552.1	1615.9	1658.7	1718.5	1747.6	1768.6	1785.5
57.5°	1344.6	1487.5	1615.9	1676.5	1695.9	1717.7	1729.0	1737.1	1743.5	1753.2
60°	1465.7	1569.1	1637.7	1667.6	1674.9	1678.9	1671.7	1657.9	1645.0	1639.4
62.5°	1502.9	1563.4	1590.9	1578.0	1565.1	1554.6	1493.2	1467.3	1442.3	1449.6
65°	1479.5	1490.8	1459.3	1414.8	1376.9	1368.8	1313.9	1292.1	1259.8	1267.1
67.5°	1387.4	1350.2	1305.8	1246.9	1228.3	1200.8	1154.0	1133.8	1117.7	1106.4
70°	1295.3	1222.6	1163.7	1099.1	1078.9	1057.9	999.8	972.3	964.2	960.2
72.5°	1143.5	1073.2	1005.4	950.5	935.2	909.3	883.5	858.4	848.7	849.6
75°	989.3	924.7	881.1	856.0	857.6	854.4	849.6	843.9	847.1	853.6
77.5°	873.8	838.2	833.4	837.4	833.4	826.9	796.3	784.1	769.6	772.0
80°	791.4	773.6	744.6	730.0	735.7	729.2	722.8	706.6	713.1	710.7
82.5°	686.4	672.7	660.6	649.3	650.1	644.4	626.7	621.8	612.9	625.9
85°	587.9	568.5	565.3	561.3	563.7	561.3	560.4	554.0	555.6	561.3
87.5°	487.8	486.2	485.3	481.3	478.9	477.3	474.8	472.4	472.4	471.6
90°	404.6	410.2	424.8	432.0	440.1	445.0	454.7	455.5	458.7	457.9
92.5°	358.6	375.5	398.9	412.7	417.5	418.3	424.8	421.5	419.9	419.1
95°	315.8	323.0	332.7	339.2	346.4	347.3	348.1	344.0	344.8	345.6
97.5°	246.3	256.8	268.9	282.6	289.1	288.3	296.4	295.6	295.6	299.6
100°	181.7	195.4	204.3	219.7	216.4	213.2	218.8	215.6	229.3	224.5
102.5°	126.8	131.6	139.7	141.3	142.1	140.5	142.1	138.9	138.9	137.3
105°	96.9	104.2	111.4	116.3	117.1	117.1	117.9	115.5	115.5	114.7
107.5°	79.9	87.2	92.9	96.1	100.1	99.3	100.9	100.1	100.9	99.3
110°	64.6	71.9	78.3	81.6	84.8	84.8	85.6	85.6	84.8	84.8





TEST NUMBER: P233279

CATALOG NUMBER: 4VRVT3-LD5-6-P-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	52.5	59.0	63.8	68.6	71.1	71.9	71.9	72.7	72.7	72.7
115°	41.2	47.6	54.1	58.1	60.6	61.4	62.2	61.4	60.6	60.6
117.5°	32.3	38.0	43.6	48.5	50.9	51.7	53.3	52.5	52.5	51.7
120°	25.8	30.7	36.3	40.4	42.0	43.6	45.2	44.4	43.6	44.4
122.5°	20.2	24.2	29.1	33.1	34.7	35.5	36.3	35.5	36.3	35.5
125°	14.5	18.6	22.6	25.8	27.5	29.1	29.9	29.1	29.1	29.1
127.5°	8.1	12.1	16.2	19.4	21.0	21.8	23.4	22.6	21.8	21.8
130°	2.4	7.3	11.3	13.7	15.3	17.0	17.0	17.0	16.2	15.3
132.5°	0.0	1.6	5.7	8.9	10.5	11.3	11.3	11.3	10.5	10.5
135°	0.0	0.0	0.8	3.2	4.8	5.7	6.5	5.7	5.7	4.8
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)