

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: P233278

Luminaire Tested: **4VRVT3-LD5-6-P-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P233278
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-L840-CD1-U
Description: 4FT VRVT3 GENERAL APPLICATION, 6000LM
Light Source: (392) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6050.0 lumens
Efficiency: N/A
Efficacy: 122.7 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

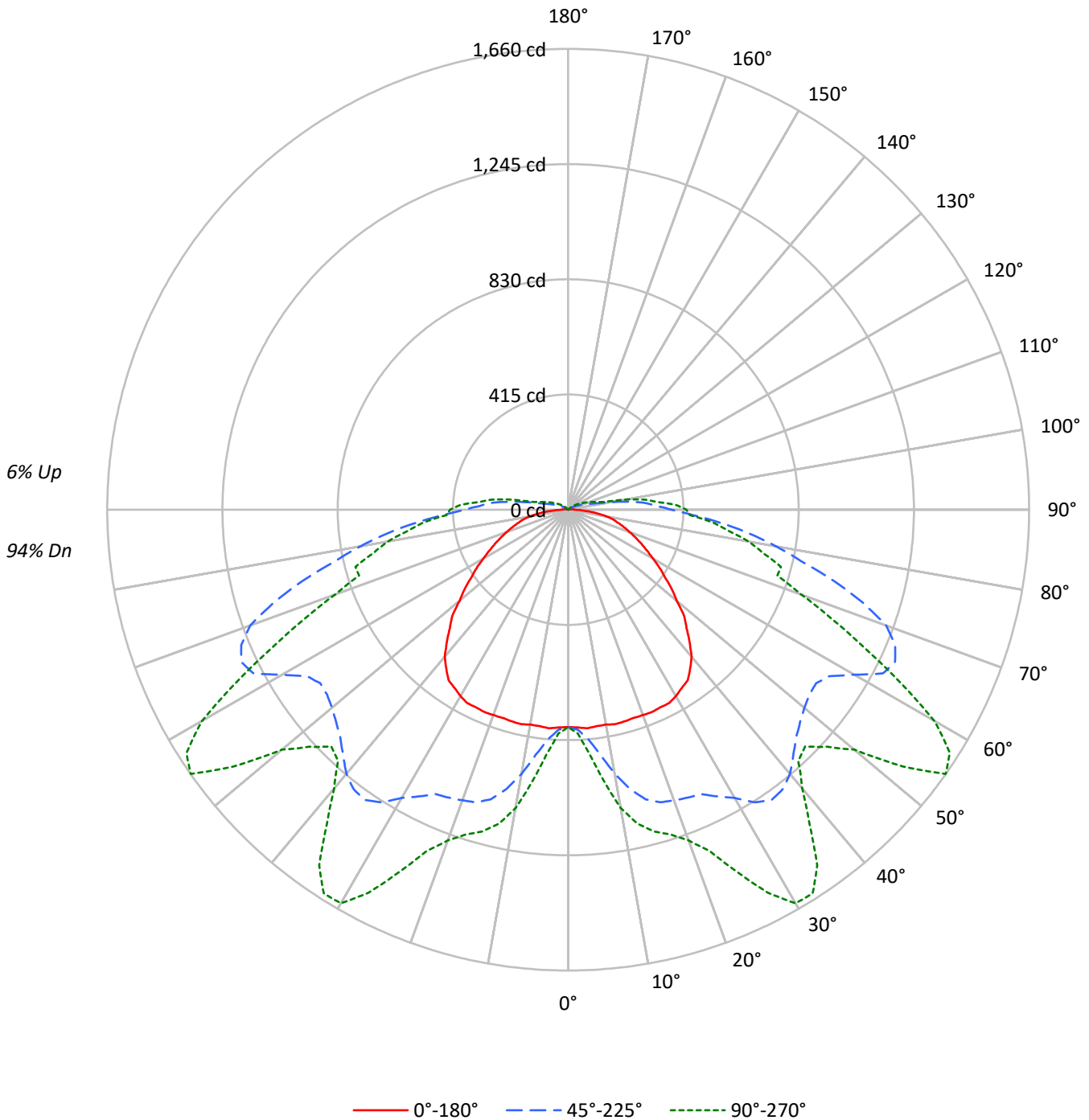
Input Watts (W): 49.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P233278

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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°	5056	5056	5056
5°	5106	5230	5529
10°	5116	6000	6686
15°	5216	6664	7248
20°	5331	6874	7606
25°	5488	7031	8647
30°	5647	7574	9918
35°	5750	8260	9630
40°	5631	8299	8277
45°	5285	8077	7869
50°	4886	8129	9147
55°	4530	8487	11893
60°	4259	9960	11626
65°	4075	11885	9687
70°	3994	12380	8029
75°	4053	11417	7942
80°	4269	10215	7516
85°	3880	8971	6938



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	1.4
10°-20°	293.8	4.9
20°-30°	530.4	8.8
30°-40°	749.5	12.4
40°-50°	800.7	13.2
50°-60°	940.2	15.5
60°-70°	950.8	15.7
70°-80°	776.0	12.8
80°-90°	532.5	8.8
90°-100°	269.0	4.4
100°-110°	79.7	1.3
110°-120°	31.3	0.5
120°-130°	11.1	0.2
130°-140°	1.6	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°	907.6	15.0
0°-40°	1657.1	27.4
0°-60°	3397.9	56.2
0°-90°	5657.2	93.5
90°-120°	380.1	6.3
90°-150°	392.8	6.5
90°-180°	393.0	6.5
0°-180°	6050.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	790	800	829	867	883	75
15°	789	908	1080	1175	1200	223
25°	785	956	1130	1341	1440	363
35°	751	885	1277	1549	1564	465
45°	603	791	1160	1228	1206	466
55°	426	623	1090	1502	1660	384
65°	290	528	1299	1280	1178	289
75°	188	694	991	797	793	199
85°	77	594	553	524	522	77
90°	22	440	372	409	426	15
95°	15	222	279	322	321	11
105°	8	23	81	109	107	8
115°	3	3	32	56	56	3
125°	2	1	8	26	27	1
135°	0	0	0	4	4	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9
2.5°	785.1	788.9	790.4	786.6	788.9	790.4	788.9	791.1	792.6	794.9	793.4
5°	790.4	789.6	793.4	789.6	794.2	800.2	803.2	811.4	815.2	824.9	828.7
7.5°	786.6	791.9	791.9	795.7	803.9	826.4	829.4	843.7	861.0	877.5	889.5
10°	785.9	791.9	802.4	812.9	827.2	845.9	858.7	885.0	917.3	941.3	965.3
12.5°	791.1	793.4	811.4	825.7	854.2	874.5	891.0	931.5	966.0	996.8	1030.6
15°	788.9	794.9	815.2	839.9	880.5	907.5	924.8	974.3	1016.3	1046.4	1080.1
17.5°	785.9	797.2	822.7	855.0	902.2	936.8	955.5	1004.3	1044.1	1083.1	1104.9
20°	787.4	800.2	829.4	873.7	920.3	953.3	972.8	1023.1	1062.1	1095.1	1113.9
22.5°	788.9	803.2	832.4	882.7	927.0	960.8	981.1	1026.8	1061.4	1099.7	1122.9
25°	785.1	800.9	836.2	877.5	931.5	955.5	976.5	1020.8	1057.6	1101.9	1130.4
27.5°	785.9	797.9	830.9	876.0	918.0	951.0	962.3	1012.6	1058.4	1107.9	1164.2
30°	775.4	789.6	825.7	857.2	898.5	929.3	946.5	1002.1	1062.1	1127.4	1198.7
32.5°	761.1	776.1	808.4	830.9	879.7	906.0	930.8	1000.6	1078.6	1160.5	1249.8
35°	750.6	755.1	770.9	795.7	850.4	885.0	916.5	1000.6	1092.1	1182.2	1276.8
37.5°	721.3	723.6	737.1	773.9	823.4	872.2	907.5	1001.3	1097.4	1185.2	1269.3
40°	691.3	692.1	706.3	743.1	799.4	853.4	892.5	991.6	1082.4	1163.5	1242.3
42.5°	646.3	652.3	672.6	709.3	781.4	827.2	872.2	960.8	1045.6	1125.2	1199.5
45°	602.7	611.0	627.5	671.0	745.4	791.1	835.4	921.8	999.8	1086.1	1160.5
47.5°	566.7	566.0	587.7	635.8	701.8	749.1	789.6	872.2	958.5	1053.9	1132.7
50°	510.4	522.4	545.7	593.7	656.0	707.8	743.9	825.7	918.8	1014.1	1110.2
52.5°	469.9	477.4	505.2	549.4	614.8	657.5	699.6	790.4	891.7	1008.1	1094.4
55°	426.3	436.1	464.6	508.9	581.7	623.0	665.8	767.1	885.0	999.8	1089.9
57.5°	391.1	398.6	424.8	474.4	548.7	597.5	647.0	750.6	876.0	993.1	1115.4
60°	353.5	361.0	394.8	444.4	523.2	574.2	621.5	737.1	873.0	1020.8	1188.2
62.5°	319.8	330.3	361.0	412.8	492.4	543.4	598.2	732.6	907.5	1101.9	1277.5
65°	290.5	301.7	335.5	387.3	465.4	528.4	594.5	771.6	976.5	1167.2	1298.6
67.5°	262.7	274.7	309.3	362.5	461.6	540.4	630.5	835.4	1026.1	1192.7	1274.5
70°	235.7	250.7	287.5	361.8	500.7	603.5	695.1	879.7	1051.6	1168.7	1218.2
72.5°	211.7	229.7	282.2	388.1	564.5	662.8	745.4	896.2	1024.6	1108.7	1110.9
75°	187.7	215.4	292.7	433.1	605.7	693.6	769.4	882.0	975.8	1016.3	990.8
77.5°	167.4	208.7	309.3	454.1	623.0	705.6	764.1	847.4	897.7	898.5	860.2
80°	141.9	193.7	304.7	454.1	614.0	690.6	740.9	785.9	799.4	788.9	761.1
82.5°	111.1	168.9	285.2	430.9	584.7	652.3	690.6	710.1	701.1	689.8	659.0
85°	77.3	135.9	252.2	400.1	537.4	593.7	625.3	625.3	602.0	569.0	553.2
87.5°	45.0	99.1	216.9	352.8	477.4	527.7	550.2	514.2	478.1	460.9	448.9
90°	21.8	66.1	174.9	310.8	411.3	439.9	440.6	393.3	368.6	371.6	372.3
92.5°	18.0	39.0	137.4	232.7	305.5	319.8	319.8	300.2	295.0	301.0	316.8
95°	15.0	16.5	72.1	154.6	208.7	222.2	229.7	234.2	248.5	265.7	279.2
97.5°	12.8	12.8	22.5	83.3	139.6	161.4	176.4	187.7	201.2	208.7	218.4
100°	10.5	10.5	12.0	27.8	78.1	98.3	109.6	117.1	129.1	141.9	156.1
102.5°	9.0	9.0	9.0	14.3	29.3	38.3	48.0	64.6	78.1	94.6	107.3
105°	7.5	7.5	7.5	9.0	18.0	23.3	30.8	44.3	56.3	70.6	81.1
107.5°	6.0	6.0	6.0	6.0	12.0	17.3	21.8	33.0	45.8	57.0	65.3
110°	4.5	4.5	4.5	5.3	7.5	11.3	15.0	24.8	34.5	44.3	53.3



TEST NUMBER: P233278

CATALOG NUMBER: 4VRVT3-LD5-6-P-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	3.8	3.8	3.8	3.8	4.5	6.0	9.8	18.0	25.5	33.8	41.3
115°	3.0	3.0	3.0	3.0	3.0	3.0	4.5	11.3	18.0	24.0	32.3
117.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	6.0	12.8	18.8	24.0
120°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.3	7.5	13.5	18.8
122.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.8	3.0	8.3	13.5
125°	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	3.8	8.3
127.5°	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	3.0
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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CATALOG NUMBER: 4VRVT3-LD5-6-P-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9	782.9
2.5°	794.2	796.4	797.9	805.4	800.9	809.2	801.7	800.9	804.7	806.9
5°	839.2	850.4	859.5	870.0	867.0	872.2	871.5	871.5	888.0	882.7
7.5°	912.7	924.0	940.5	957.0	953.3	972.8	975.0	978.1	977.3	985.6
10°	988.6	1010.3	1026.8	1053.9	1051.6	1062.9	1077.9	1073.4	1085.4	1091.4
12.5°	1056.9	1081.6	1107.9	1132.7	1131.2	1137.9	1144.7	1149.2	1155.9	1158.9
15°	1107.9	1131.9	1154.4	1177.0	1174.7	1183.7	1187.5	1191.2	1200.2	1200.2
17.5°	1139.4	1155.2	1176.2	1201.0	1210.0	1214.5	1210.0	1222.8	1231.8	1226.5
20°	1146.2	1169.5	1202.5	1216.0	1231.0	1239.3	1243.8	1259.5	1258.8	1267.8
22.5°	1159.7	1191.2	1222.0	1264.0	1267.8	1288.1	1301.6	1318.1	1327.8	1330.1
25°	1182.2	1232.5	1277.5	1324.1	1340.6	1365.4	1393.9	1414.2	1430.7	1439.7
27.5°	1228.8	1291.1	1359.4	1416.4	1426.2	1456.2	1497.5	1527.5	1543.3	1554.5
30°	1288.1	1361.6	1432.2	1492.2	1520.0	1545.5	1583.8	1598.8	1624.3	1637.1
32.5°	1330.8	1404.4	1479.5	1536.5	1562.8	1586.0	1607.8	1621.3	1626.6	1638.6
35°	1351.1	1420.9	1498.2	1530.5	1549.3	1556.8	1566.5	1564.3	1565.0	1563.5
37.5°	1340.6	1405.2	1452.4	1478.7	1482.5	1481.0	1469.7	1444.2	1425.4	1426.9
40°	1312.8	1366.9	1396.9	1396.1	1387.1	1373.6	1348.1	1315.8	1303.8	1311.3
42.5°	1278.3	1313.6	1318.1	1308.3	1286.6	1284.3	1248.3	1237.8	1225.8	1226.5
45°	1234.8	1255.0	1261.8	1240.8	1228.0	1225.8	1209.2	1203.2	1205.5	1206.2
47.5°	1195.0	1216.7	1220.5	1215.2	1212.2	1216.7	1222.8	1237.8	1239.3	1264.0
50°	1170.2	1193.5	1219.0	1238.5	1246.0	1270.8	1304.6	1320.3	1339.1	1344.4
52.5°	1165.0	1204.7	1266.3	1315.1	1351.1	1384.1	1424.7	1482.5	1501.2	1519.2
55°	1180.0	1264.8	1363.1	1442.7	1502.0	1541.8	1597.3	1624.3	1643.8	1659.6
57.5°	1249.8	1382.6	1502.0	1558.3	1576.3	1596.6	1607.1	1614.6	1620.6	1629.6
60°	1362.4	1458.4	1522.2	1550.0	1556.8	1560.5	1553.8	1541.0	1529.0	1523.7
62.5°	1396.9	1453.2	1478.7	1466.7	1454.7	1444.9	1387.9	1363.9	1340.6	1347.4
65°	1375.1	1385.6	1356.4	1315.1	1279.8	1272.3	1221.2	1201.0	1171.0	1177.7
67.5°	1289.6	1255.0	1213.7	1158.9	1141.7	1116.2	1072.6	1053.9	1038.9	1028.3
70°	1204.0	1136.4	1081.6	1021.6	1002.8	983.3	929.3	903.7	896.2	892.5
72.5°	1062.9	997.6	934.5	883.5	869.2	845.2	821.2	797.9	788.9	789.6
75°	919.5	859.5	818.9	795.7	797.2	794.2	789.6	784.4	787.4	793.4
77.5°	812.2	779.1	774.6	778.4	774.6	768.6	740.1	728.8	715.3	717.6
80°	735.6	719.1	692.1	678.6	683.8	677.8	671.8	656.8	662.8	660.5
82.5°	638.0	625.3	614.0	603.5	604.2	599.0	582.5	578.0	569.7	581.7
85°	546.4	528.4	525.4	521.7	523.9	521.7	520.9	514.9	516.4	521.7
87.5°	453.4	451.9	451.1	447.4	445.1	443.6	441.4	439.1	439.1	438.4
90°	376.1	381.3	394.8	401.6	409.1	413.6	422.6	423.3	426.3	425.6
92.5°	333.3	349.0	370.8	383.6	388.1	388.8	394.8	391.8	390.3	389.6
95°	293.5	300.2	309.3	315.3	322.0	322.8	323.5	319.8	320.5	321.3
97.5°	228.9	238.7	250.0	262.7	268.7	268.0	275.5	274.7	274.7	278.5
100°	168.9	181.6	189.9	204.2	201.2	198.2	203.4	200.4	213.2	208.7
102.5°	117.8	122.4	129.9	131.4	132.1	130.6	132.1	129.1	129.1	127.6
105°	90.1	96.8	103.6	108.1	108.8	108.8	109.6	107.3	107.3	106.6
107.5°	74.3	81.1	86.3	89.3	93.1	92.3	93.8	93.1	93.8	92.3
110°	60.0	66.8	72.8	75.8	78.8	78.8	79.6	79.6	78.8	78.8



TEST NUMBER: P233278

CATALOG NUMBER: 4VRVT3-LD5-6-P-UNV-L840-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	48.8	54.8	59.3	63.8	66.1	66.8	66.8	67.6	67.6	67.6
115°	38.3	44.3	50.3	54.0	56.3	57.0	57.8	57.0	56.3	56.3
117.5°	30.0	35.3	40.5	45.0	47.3	48.0	49.5	48.8	48.8	48.0
120°	24.0	28.5	33.8	37.5	39.0	40.5	42.0	41.3	40.5	41.3
122.5°	18.8	22.5	27.0	30.8	32.3	33.0	33.8	33.0	33.8	33.0
125°	13.5	17.3	21.0	24.0	25.5	27.0	27.8	27.0	27.0	27.0
127.5°	7.5	11.3	15.0	18.0	19.5	20.3	21.8	21.0	20.3	20.3
130°	2.3	6.8	10.5	12.8	14.3	15.8	15.8	15.8	15.0	14.3
132.5°	0.0	1.5	5.3	8.3	9.8	10.5	10.5	10.5	9.8	9.8
135°	0.0	0.0	0.8	3.0	4.5	5.3	6.0	5.3	5.3	4.5
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)