

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: STREETWORKS

Report Number: P179079

Luminaire Tested: **VERD-A02-E-U-T4-AP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P179079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26294)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-A02-E-U-T4-AP
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K LEDS AND TYPE IV OPTICS, GREY PAINTED FINISH
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9123 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

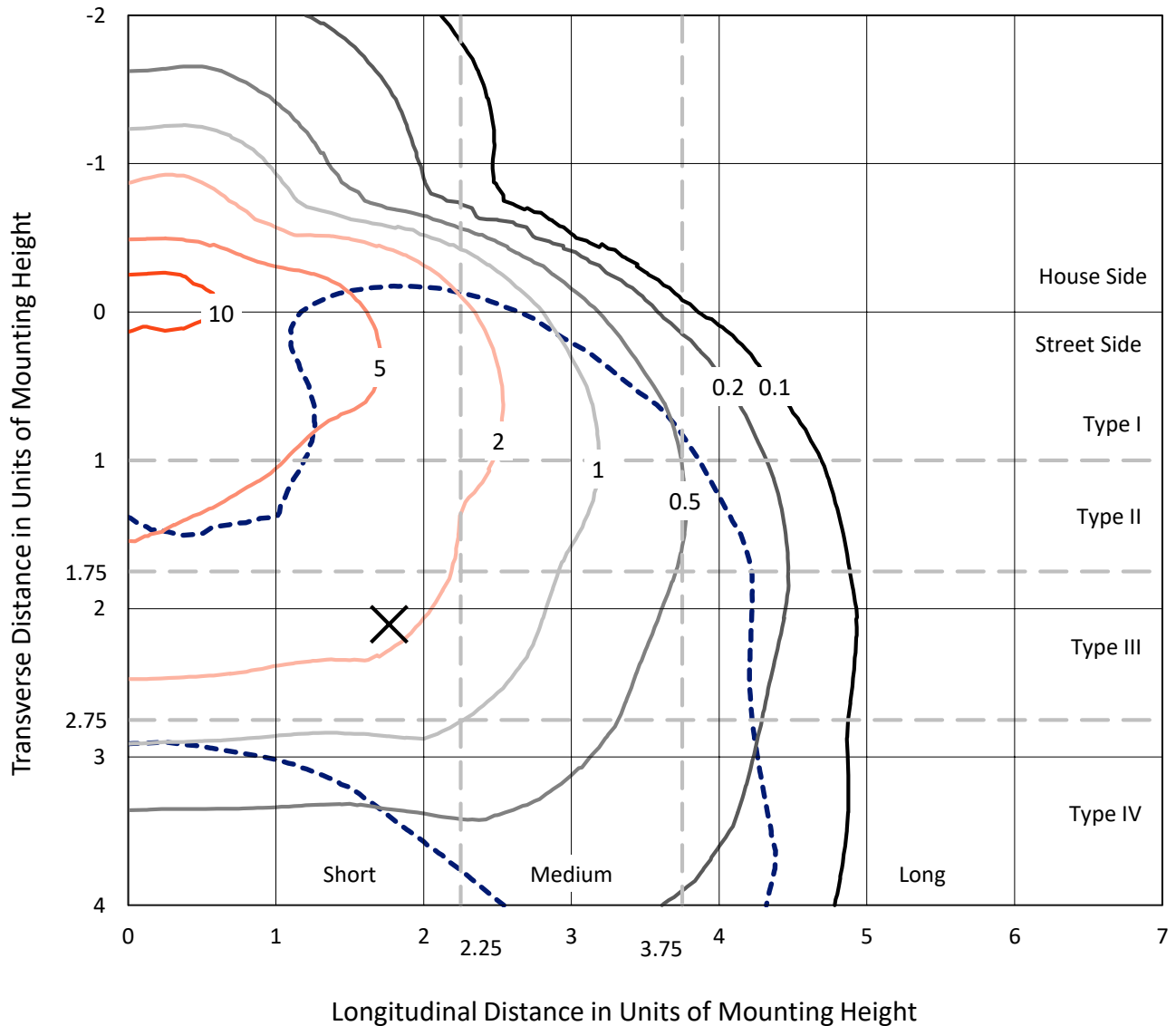
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

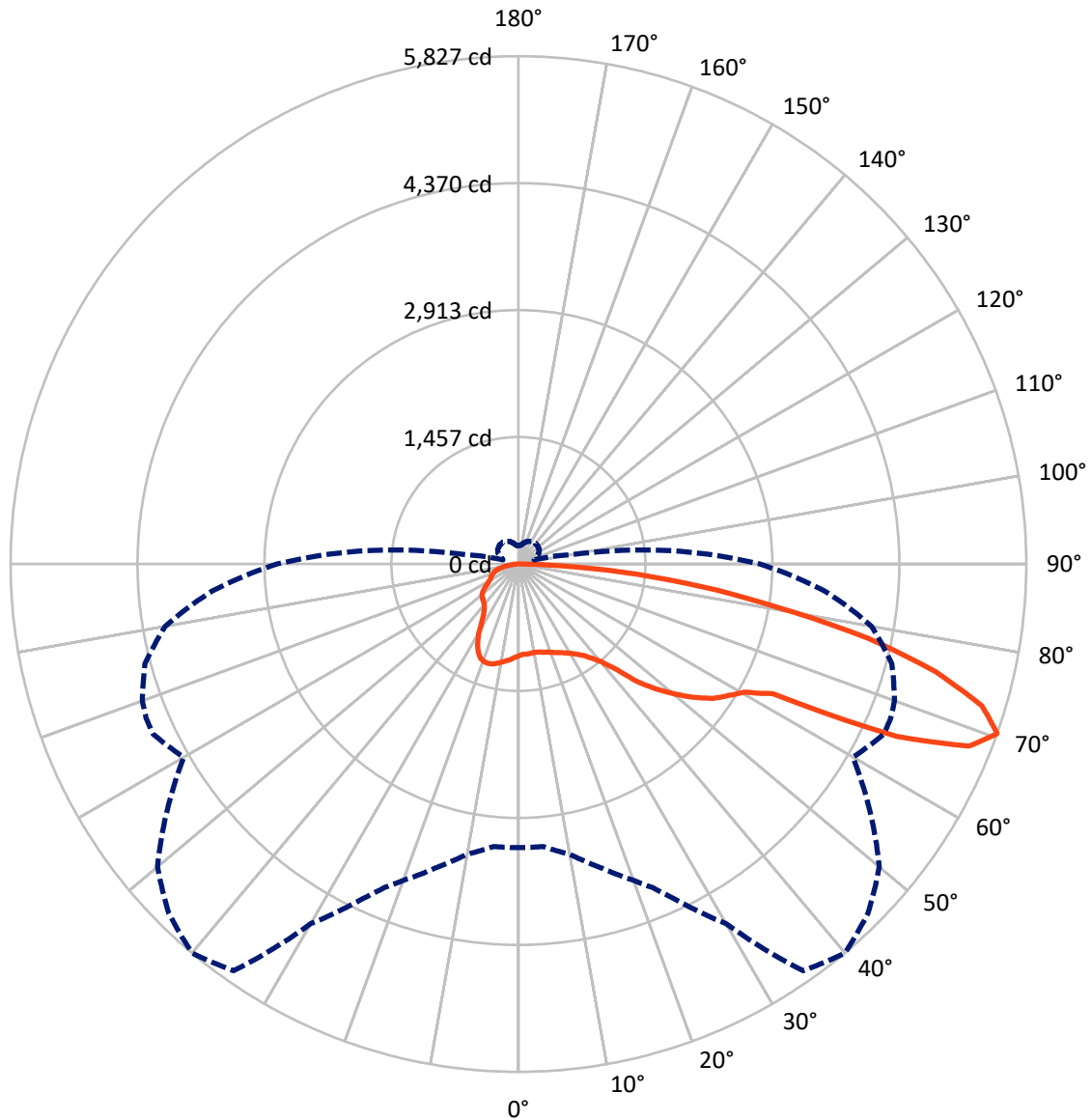


Based on 10 foot mounting height. Maximum calculated value = 11.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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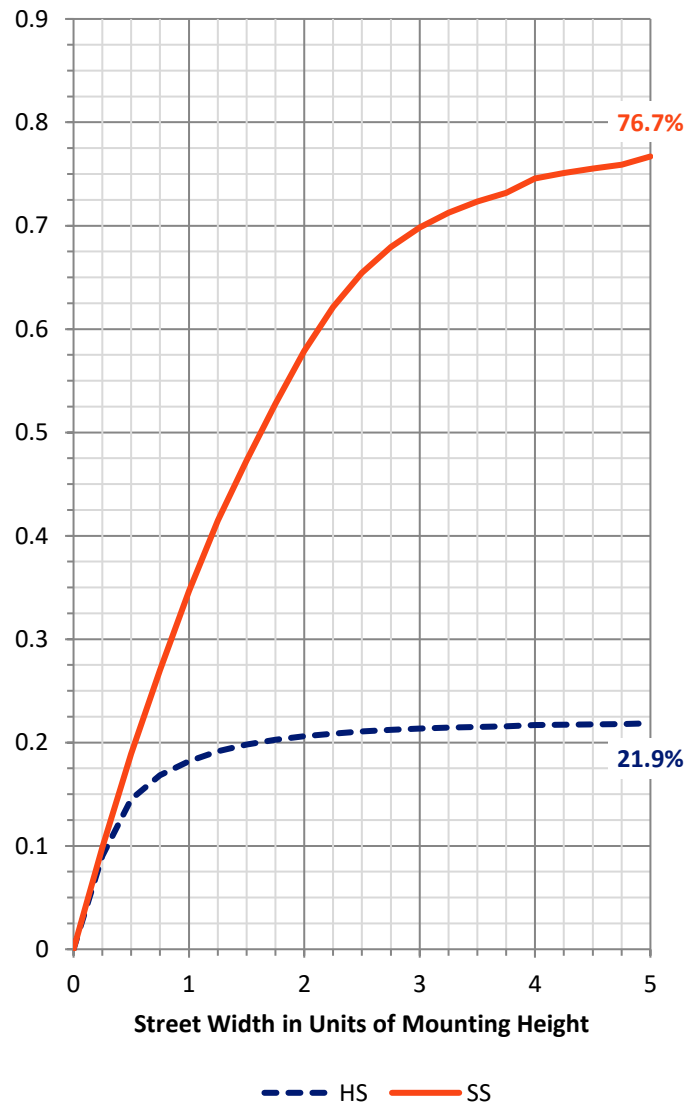
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2020.9	0.0	2020.9
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	7102.1	0.0	7102.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	9123.0	0.0	9123.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.3	1.1
10°-20°	319.6	3.5
20°-30°	535.0	5.9
30°-40°	754.2	8.3
40°-50°	1181.1	12.9
50°-60°	1727.4	18.9
60°-70°	2395.8	26.3
70°-80°	1795.2	19.7
80°-90°	312.5	3.4
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°-90°	9123.0	100.0
0°-180°	9123.0	100.0

Coefficient of Utilization



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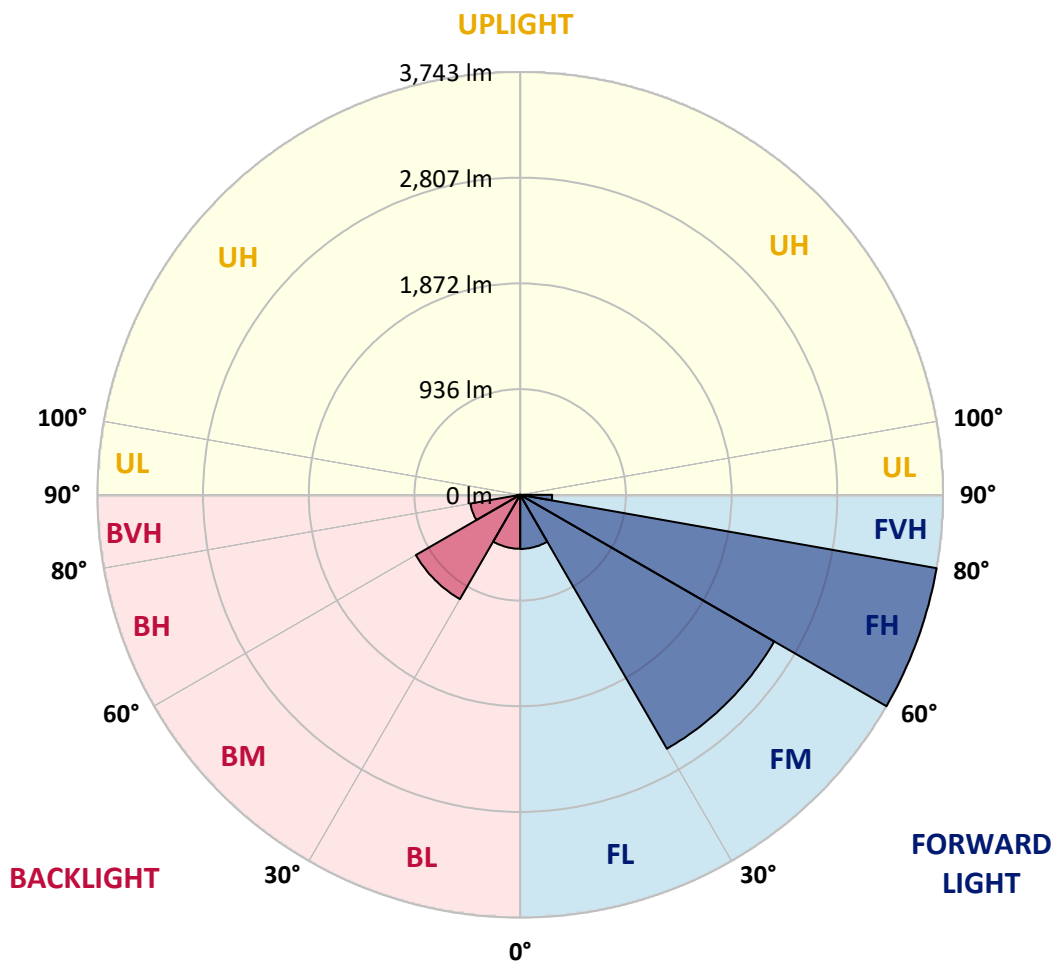
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	478.9	5.2			
FM	(30°-60°)	2596.3	28.5			
FH	(60°-80°)	3743.1	41.0			G2/5000
FVH	(80°-90°)	283.7	3.1			G3/500
BL	(0°-30°)	478.0	5.2	B1/500		
BM	(30°-60°)	1066.4	11.7	B2/2500		
BH	(60°-80°)	447.9	4.9	B1/500		G1/500
BVH	(80°-90°)	28.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6
2.5°	1042.6	1041.6	1036.5	1034.5	1028.4	1031.5	1037.5	1042.6	1040.5	1037.5	1039.5
5°	1039.5	1037.5	1033.5	1030.5	1024.4	1025.4	1031.5	1034.5	1038.5	1037.5	1039.5
7.5°	1026.4	1024.4	1018.3	1017.3	1012.3	1013.3	1016.3	1021.4	1029.4	1033.5	1034.5
10°	1018.3	1014.3	1009.3	1009.3	1004.2	1005.2	1008.2	1013.3	1023.4	1030.5	1033.5
12.5°	1014.3	1011.3	1008.2	1009.3	1006.2	1008.2	1011.3	1017.3	1027.4	1036.5	1038.5
15°	1021.4	1021.4	1017.3	1019.4	1019.4	1023.4	1026.4	1030.5	1038.5	1049.6	1056.7
17.5°	1040.5	1041.6	1037.5	1041.6	1041.6	1044.6	1047.6	1049.6	1052.7	1062.7	1074.9
20°	1048.6	1051.6	1050.6	1057.7	1062.7	1065.8	1067.8	1071.8	1072.8	1079.9	1091.0
22.5°	1070.8	1068.8	1068.8	1078.9	1078.9	1082.9	1086.0	1088.0	1093.0	1104.1	1112.2
25°	1095.0	1092.0	1093.0	1101.1	1099.1	1100.1	1103.1	1107.2	1112.2	1126.3	1141.5
27.5°	1111.2	1110.2	1111.2	1117.2	1122.3	1124.3	1127.3	1131.4	1142.5	1154.6	1171.7
30°	1146.5	1146.5	1137.4	1141.5	1144.5	1146.5	1151.6	1162.7	1175.8	1189.9	1207.1
32.5°	1205.1	1206.1	1194.0	1189.9	1185.9	1184.9	1187.9	1207.1	1216.2	1233.3	1251.5
35°	1265.6	1256.5	1250.5	1256.5	1258.5	1256.5	1257.5	1268.6	1274.7	1289.8	1306.0
37.5°	1428.1	1405.9	1395.8	1390.8	1366.5	1348.4	1342.3	1346.4	1351.4	1371.6	1388.7
40°	1664.3	1664.3	1638.0	1622.9	1582.5	1553.2	1532.1	1493.7	1471.5	1478.6	1494.7
42.5°	1920.6	1907.5	1891.4	1855.0	1828.8	1792.4	1766.2	1710.7	1671.3	1655.2	1624.9
45°	2123.5	2131.6	2137.6	2108.3	2087.1	2071.0	2057.9	2033.7	1984.2	1937.8	1873.2
47.5°	2314.2	2323.3	2322.3	2257.7	2273.9	2275.9	2272.9	2245.6	2193.1	2147.7	2073.0
50°	2503.0	2522.1	2499.9	2394.0	2418.2	2424.2	2425.2	2403.0	2363.7	2348.5	2313.2
52.5°	2737.1	2720.0	2619.0	2553.4	2540.3	2544.3	2543.3	2539.3	2541.3	2545.4	2537.3
55°	3006.6	2870.3	2739.1	2704.8	2681.6	2665.5	2654.4	2636.2	2647.3	2721.0	2717.9
57.5°	3044.9	3039.9	3032.8	2891.5	2852.2	2841.1	2818.9	2802.7	2747.2	2844.1	2887.5
60°	3649.5	3709.0	3642.4	3595.0	3509.2	3384.0	3233.7	3065.1	2900.6	2982.4	3047.0
62.5°	4305.5	4305.5	4384.2	4331.7	4277.2	4174.3	4118.8	3901.8	3589.9	3277.1	3285.1
65°	4375.1	4401.4	4465.0	4590.1	4643.6	4671.9	4710.2	4690.0	4737.5	4767.7	4223.7
67.5°	3934.1	3966.4	4048.1	4240.9	4429.6	4522.5	4631.5	4866.6	5299.6	5576.2	5503.5
70°	3252.8	3253.9	3379.0	3601.0	3862.4	4016.9	4236.9	4764.7	5696.3	5826.5	5671.0
72.5°	2409.1	2408.1	2542.3	2740.1	3002.5	3221.6	3446.6	4211.6	5411.6	5560.0	5493.4
75°	1697.6	1705.6	1816.7	1997.3	2227.4	2403.0	2618.0	3427.4	4577.0	4944.4	5049.3
77.5°	1183.9	1212.1	1281.8	1432.1	1625.9	1767.2	1934.7	2611.0	3605.1	4106.7	4267.1
80°	752.9	778.1	840.7	973.9	1143.5	1268.6	1400.9	1907.5	2682.6	3006.6	3153.9
82.5°	429.9	447.1	502.6	608.6	737.8	836.7	938.6	1282.8	1901.4	2107.3	2068.0
85°	210.9	222.0	258.4	330.0	427.9	498.6	570.2	776.1	1085.0	1202.0	1142.5
87.5°	56.5	60.6	75.7	108.0	147.4	176.6	202.9	287.6	355.3	307.8	230.1
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°	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6
2.5°	1037.5	1032.5	1035.5	1036.5	1036.5	1039.5	1042.6	1044.6	1040.5	1050.6	1046.6
5°	1038.5	1033.5	1040.5	1043.6	1043.6	1045.6	1051.6	1053.7	1055.7	1062.7	1060.7
7.5°	1036.5	1038.5	1046.6	1053.7	1054.7	1055.7	1066.8	1066.8	1076.9	1077.9	1079.9
10°	1038.5	1046.6	1055.7	1068.8	1071.8	1072.8	1082.9	1089.0	1101.1	1097.1	1106.1
12.5°	1047.6	1061.7	1071.8	1091.0	1098.1	1101.1	1115.2	1128.4	1142.5	1138.4	1146.5
15°	1064.8	1082.9	1098.1	1121.3	1130.4	1137.4	1156.6	1177.8	1188.9	1191.9	1204.0
17.5°	1083.9	1105.1	1125.3	1149.5	1162.7	1172.8	1195.0	1223.2	1234.3	1246.4	1259.6
20°	1102.1	1126.3	1145.5	1171.7	1187.9	1202.0	1232.3	1262.6	1279.7	1299.9	1315.1
22.5°	1122.3	1145.5	1166.7	1194.0	1213.1	1232.3	1271.7	1303.0	1330.2	1354.4	1374.6
25°	1154.6	1171.7	1197.0	1225.2	1248.5	1273.7	1314.1	1348.4	1385.7	1414.0	1437.2
27.5°	1188.9	1203.0	1231.3	1266.6	1290.8	1316.1	1354.4	1397.8	1443.2	1481.6	1512.9
30°	1224.2	1244.4	1279.7	1316.1	1339.3	1363.5	1404.9	1461.4	1516.9	1567.4	1594.6
32.5°	1267.6	1295.9	1339.3	1377.6	1397.8	1420.0	1469.5	1535.1	1613.8	1668.3	1671.3
35°	1330.2	1364.5	1409.9	1450.3	1469.5	1493.7	1552.2	1631.0	1730.9	1775.3	1753.1
37.5°	1414.0	1456.4	1499.8	1544.2	1566.4	1595.6	1664.3	1779.3	1890.3	1910.5	1853.0
40°	1527.0	1568.4	1617.8	1669.3	1702.6	1742.0	1832.8	2016.5	2116.4	2089.2	1991.3
42.5°	1649.1	1707.7	1768.2	1841.9	1890.3	1931.7	2071.0	2289.0	2342.5	2292.0	2143.7
45°	1851.0	1884.3	1944.8	2032.6	2088.2	2155.8	2355.6	2581.7	2612.0	2511.0	2309.2
47.5°	2045.8	2042.7	2102.3	2226.4	2306.2	2411.1	2665.5	2877.4	2874.4	2746.2	2489.8
50°	2280.9	2278.9	2307.2	2458.6	2571.6	2695.7	3015.7	3171.1	3119.6	2955.1	2662.4
52.5°	2508.0	2529.2	2585.7	2708.9	2823.9	2983.4	3315.4	3406.2	3347.7	3144.9	2807.8
55°	2718.9	2763.4	2839.0	2997.5	3143.8	3345.7	3607.1	3644.4	3543.5	3292.2	2912.7
57.5°	2920.8	2982.4	3087.3	3303.3	3512.2	3696.9	3855.4	3851.3	3702.0	3405.2	2980.3
60°	3109.5	3201.4	3336.6	3614.2	3851.3	3991.6	4095.6	4034.0	3824.1	3477.9	3003.6
62.5°	3327.5	3423.4	3578.8	3951.2	4159.2	4255.0	4285.3	4161.2	3892.7	3492.0	2964.2
65°	3741.3	3771.6	3887.7	4284.3	4419.5	4455.9	4407.4	4216.7	3905.8	3445.6	2817.9
67.5°	5079.6	4333.8	4194.5	4538.6	4588.1	4570.9	4455.9	4215.7	3832.2	3257.9	2465.6
70°	5405.6	4918.1	4431.7	4623.4	4622.4	4591.1	4436.7	4113.7	3523.3	2767.4	1763.2
72.5°	5277.4	4815.2	4403.4	4537.6	4573.0	4574.0	4255.0	3693.9	2852.2	1884.3	816.5
75°	4941.3	4509.4	4336.8	4324.7	4261.1	4081.4	3528.4	2780.5	1730.9	750.9	121.1
77.5°	4182.4	3777.7	3484.0	3189.3	3028.8	2773.4	2071.0	1247.4	569.2	90.8	77.7
80°	2958.1	2419.2	1794.5	1362.5	1148.5	786.2	269.5	98.9	81.7	57.5	49.5
82.5°	1751.1	1192.9	522.8	121.1	92.9	85.8	71.7	61.6	52.5	35.3	31.3
85°	893.2	472.3	68.6	56.5	53.5	50.5	43.4	38.4	29.3	19.2	21.2
87.5°	120.1	36.3	20.2	20.2	19.2	19.2	18.2	14.1	9.1	6.1	6.1
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°	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6
2.5°	1046.6	1049.6	1052.7	1054.7	1056.7	1057.7	1060.7	1060.7	1064.8	1069.8	1073.9
5°	1060.7	1067.8	1067.8	1069.8	1075.9	1075.9	1081.9	1080.9	1088.0	1096.1	1097.1
7.5°	1081.9	1092.0	1090.0	1092.0	1099.1	1101.1	1105.1	1102.1	1112.2	1118.3	1119.3
10°	1111.2	1117.2	1119.3	1122.3	1128.4	1133.4	1134.4	1131.4	1139.5	1139.5	1140.5
12.5°	1159.6	1161.7	1168.7	1169.7	1169.7	1177.8	1173.8	1169.7	1170.7	1163.7	1158.6
15°	1218.2	1217.2	1228.3	1227.3	1223.2	1227.3	1218.2	1210.1	1202.0	1183.9	1168.7
17.5°	1273.7	1274.7	1282.8	1279.7	1276.7	1272.7	1260.6	1245.4	1223.2	1192.9	1166.7
20°	1329.2	1330.2	1329.2	1326.2	1322.1	1303.0	1284.8	1260.6	1229.3	1186.9	1150.6
22.5°	1386.7	1386.7	1376.6	1370.6	1362.5	1329.2	1299.9	1263.6	1217.2	1162.7	1112.2
25°	1447.3	1448.3	1425.1	1412.0	1397.8	1346.4	1300.9	1246.4	1179.8	1109.2	1046.6
27.5°	1516.9	1499.8	1460.4	1437.2	1409.9	1341.3	1272.7	1203.0	1119.3	1031.5	950.7
30°	1576.5	1534.1	1472.5	1437.2	1395.8	1312.0	1218.2	1125.3	1027.4	926.5	827.6
32.5°	1627.9	1556.3	1466.5	1417.0	1361.5	1254.5	1145.5	1024.4	912.4	798.3	719.6
35°	1676.4	1572.4	1455.4	1391.8	1321.1	1184.9	1053.7	916.4	799.3	704.5	637.9
37.5°	1736.9	1589.6	1435.2	1355.4	1270.7	1111.2	966.9	832.6	727.7	651.0	607.6
40°	1814.6	1609.8	1406.9	1308.0	1207.1	1029.4	873.0	750.9	669.1	613.6	594.5
42.5°	1907.5	1632.0	1362.5	1239.4	1122.3	926.5	773.1	676.2	620.7	593.4	582.3
45°	2005.4	1655.2	1309.0	1160.6	1027.4	823.6	686.3	613.6	586.4	577.3	571.2
47.5°	2121.5	1686.5	1246.4	1068.8	921.5	721.6	612.6	564.2	564.2	565.2	564.2
50°	2240.6	1717.8	1184.9	970.9	805.4	621.7	552.1	534.9	541.0	549.0	552.1
52.5°	2341.5	1746.0	1164.7	932.6	704.5	534.9	501.6	500.6	508.7	518.8	521.8
55°	2396.0	1751.1	1181.8	926.5	682.3	476.4	451.1	458.2	466.3	477.4	477.4
57.5°	2426.3	1712.7	1097.1	793.3	590.4	424.9	403.7	413.8	416.8	426.9	433.0
60°	2386.9	1630.0	812.5	555.1	436.0	363.3	356.3	371.4	377.5	389.6	396.6
62.5°	2278.9	1409.9	509.7	359.3	324.0	317.9	325.0	339.1	351.2	363.3	369.4
65°	2022.6	939.6	283.6	281.6	288.6	294.7	313.9	327.0	338.1	349.2	347.2
67.5°	1454.3	351.2	236.2	248.3	260.4	282.6	302.8	319.9	324.0	330.0	330.0
70°	613.6	184.7	210.9	226.1	248.3	271.5	291.7	295.7	305.8	305.8	307.8
72.5°	138.3	150.4	181.7	202.9	227.1	248.3	266.4	275.5	278.6	292.7	289.7
75°	109.0	124.1	161.5	179.6	192.8	210.9	232.1	241.2	250.3	260.4	267.5
77.5°	78.7	97.9	133.2	145.3	158.5	178.6	188.7	202.9	210.9	217.0	218.0
80°	55.5	78.7	102.9	110.0	118.1	121.1	132.2	154.4	160.5	170.6	173.6
82.5°	41.4	54.5	61.6	63.6	65.6	74.7	76.7	88.8	94.9	111.0	120.1
85°	30.3	31.3	24.2	23.2	23.2	28.3	32.3	42.4	51.5	62.6	68.6
87.5°	7.1	8.1	9.1	10.1	11.1	14.1	19.2	29.3	42.4	54.5	57.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P179079

CATALOG NUMBER: VERD-A02-E-U-T4-AP

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6	1050.6
2.5°	1074.9	1082.9	1085.0	1086.0	1090.0	1091.0	1092.0	1093.0
5°	1098.1	1108.2	1110.2	1111.2	1117.2	1118.3	1118.3	1120.3
7.5°	1119.3	1127.3	1129.4	1130.4	1135.4	1138.4	1138.4	1140.5
10°	1138.4	1141.5	1140.5	1140.5	1145.5	1145.5	1145.5	1145.5
12.5°	1151.6	1147.5	1142.5	1139.5	1136.4	1131.4	1128.4	1125.3
15°	1152.6	1137.4	1127.3	1120.3	1109.2	1094.0	1085.0	1076.9
17.5°	1136.4	1110.2	1096.1	1082.9	1058.7	1034.5	1017.3	1003.2
20°	1103.1	1058.7	1039.5	1020.4	983.0	948.7	927.5	912.4
22.5°	1047.6	985.0	956.8	933.6	885.1	845.8	823.6	809.4
25°	969.9	888.1	850.8	817.5	774.1	743.8	725.7	713.5
27.5°	857.9	779.1	749.9	724.6	686.3	659.0	639.9	632.8
30°	749.9	691.3	669.1	649.0	617.7	591.4	571.2	562.2
32.5°	659.0	621.7	606.6	593.4	570.2	544.0	522.8	514.7
35°	598.5	577.3	567.2	557.1	533.9	508.7	483.4	472.3
37.5°	586.4	571.2	563.2	555.1	535.9	504.6	475.4	463.2
40°	581.3	569.2	565.2	560.1	537.9	509.7	477.4	463.2
42.5°	576.3	572.2	566.2	558.1	533.9	506.6	480.4	465.3
45°	571.2	567.2	559.1	551.1	526.8	496.6	471.3	456.2
47.5°	563.2	554.1	545.0	535.9	512.7	481.4	452.1	439.0
50°	540.0	525.8	519.8	507.7	481.4	450.1	422.9	414.8
52.5°	506.6	489.5	483.4	470.3	443.1	409.8	383.5	373.4
55°	468.3	456.2	452.1	441.0	414.8	380.5	358.3	348.2
57.5°	437.0	434.0	433.0	427.9	405.7	377.5	360.3	353.2
60°	401.7	401.7	405.7	409.8	393.6	361.3	339.1	333.1
62.5°	369.4	365.4	366.4	366.4	350.2	323.0	304.8	295.7
65°	340.1	331.0	329.0	322.0	301.8	273.5	255.3	251.3
67.5°	319.9	307.8	303.8	297.7	276.5	251.3	234.1	228.1
70°	298.7	284.6	280.6	273.5	252.3	228.1	214.0	208.9
72.5°	278.6	261.4	258.4	252.3	230.1	208.9	191.8	184.7
75°	255.3	227.1	217.0	204.9	177.6	153.4	139.3	134.2
77.5°	205.9	197.8	190.7	181.7	155.4	131.2	118.1	112.0
80°	167.5	164.5	160.5	156.4	129.2	104.0	70.6	62.6
82.5°	121.1	116.1	120.1	123.1	99.9	61.6	48.4	43.4
85°	67.6	63.6	62.6	68.6	56.5	43.4	31.3	27.2
87.5°	58.5	54.5	51.5	48.4	34.3	29.3	24.2	21.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)