

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: P509320

Luminaire Tested: **VERD-CA2-70-740-U-T4-HSS**

Issue Date: 3/4/2021

Test Information

Test Method: LM-79-08
Report Number: P509320
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-139-7)
Test Lab: INNOVATION CENTER
Issue Date: 3/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-CA2-70-740-U-T4-HSS
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 980mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9533 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

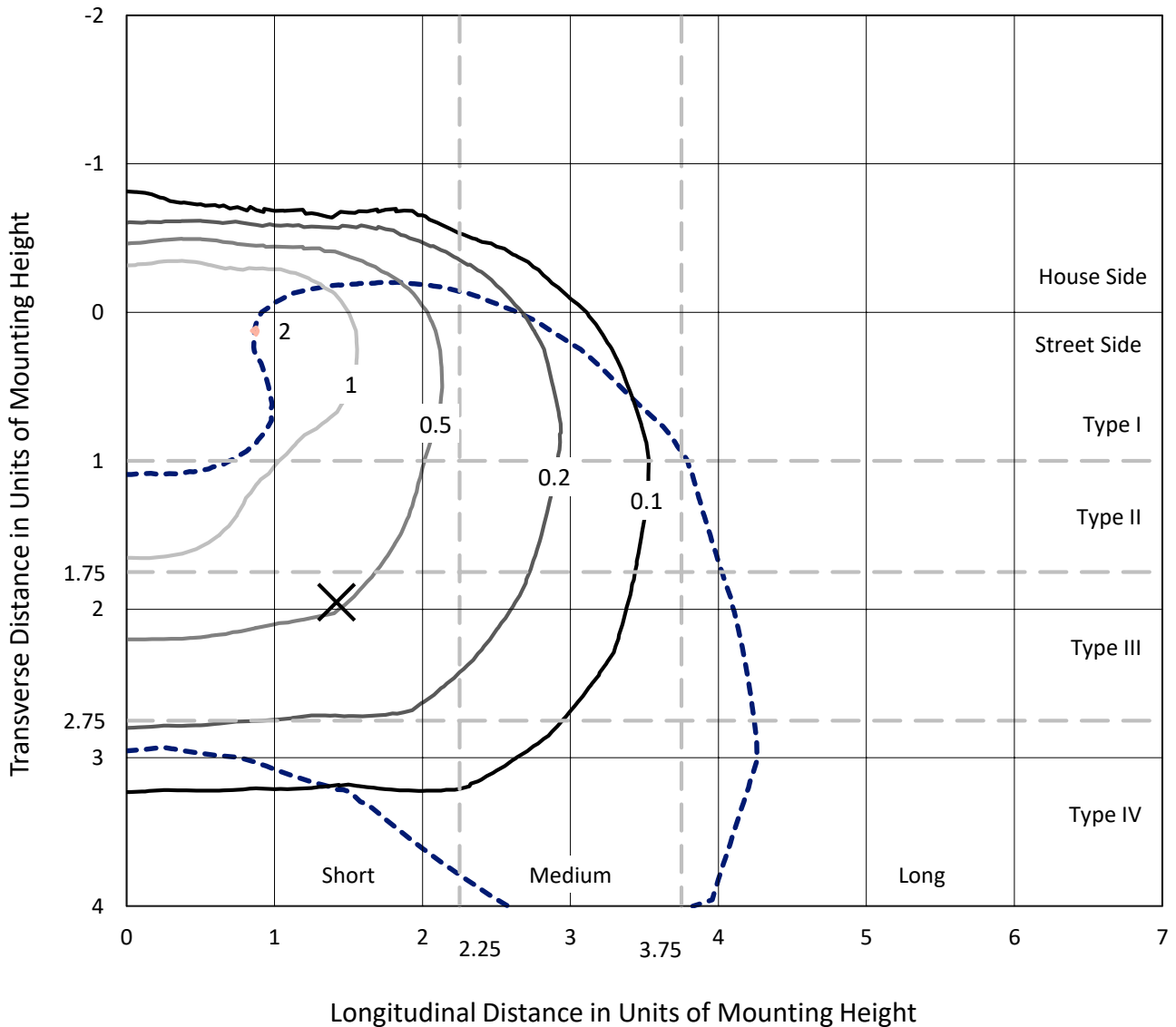
Input Watts (W): 73.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

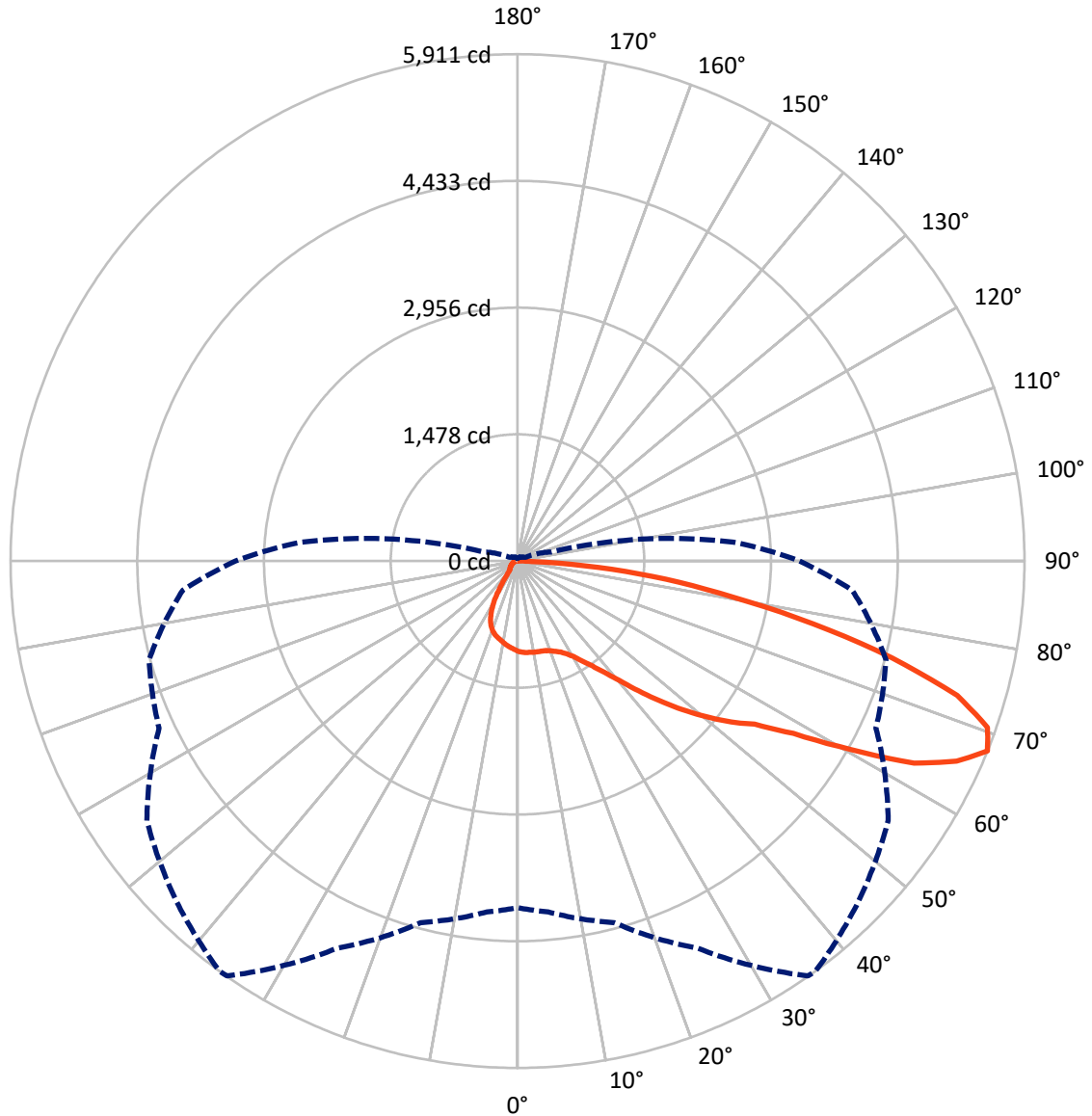
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - N/A

REPORT NUMBER: P509320
CATALOG NUMBER: VERD-CA2-70-740-U-T4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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CATALOG NUMBER: VERD-CA2-70-740-U-T4-HSS

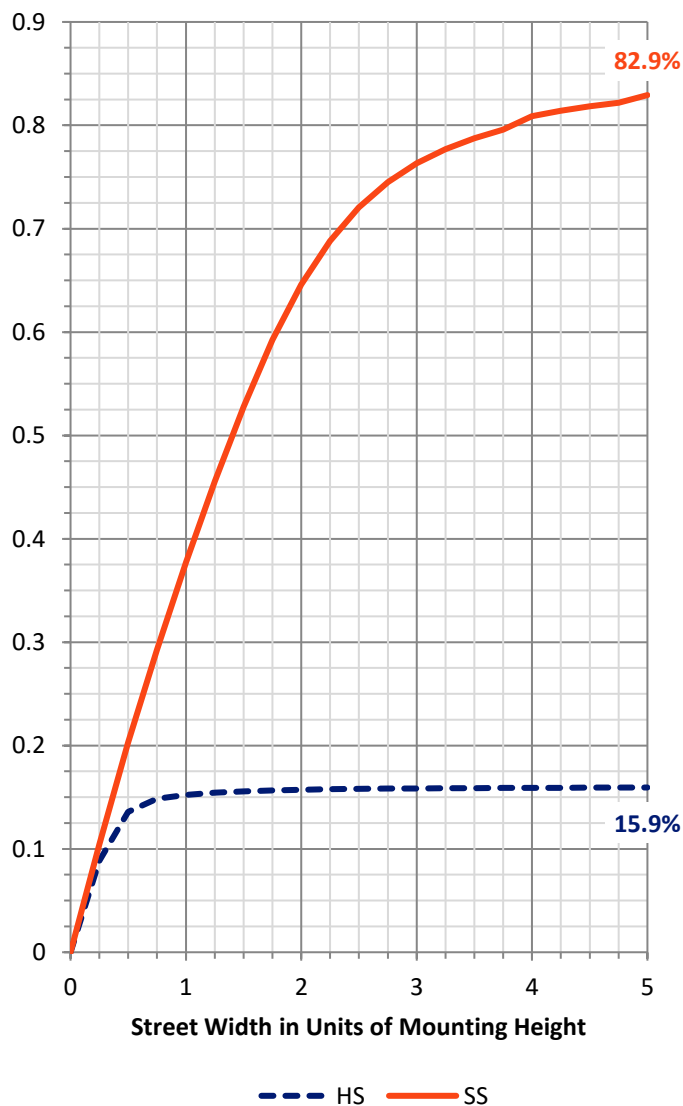
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1537.4 | 0.0 | 1537.4 |
| | % Fixture | 16.1 | 0.0 | 16.1 |
| Street Side | Lumens | 7995.6 | 0.0 | 7995.6 |
| | % Fixture | 83.9 | 0.0 | 83.9 |
| Total | Lumens | 9533.0 | 0.0 | 9533.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 99.4 | 1.0 |
| 10°-20° | 294.6 | 3.1 |
| 20°-30° | 487.2 | 5.1 |
| 30°-40° | 772.8 | 8.1 |
| 40°-50° | 1333.8 | 14.0 |
| 50°-60° | 1977.0 | 20.7 |
| 60°-70° | 2556.0 | 26.8 |
| 70°-80° | 1725.4 | 18.1 |
| 80°-90° | 286.8 | 3.0 |
| 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° | 9533.0 | 100.0 |
| 0°-180° | 9533.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P509320

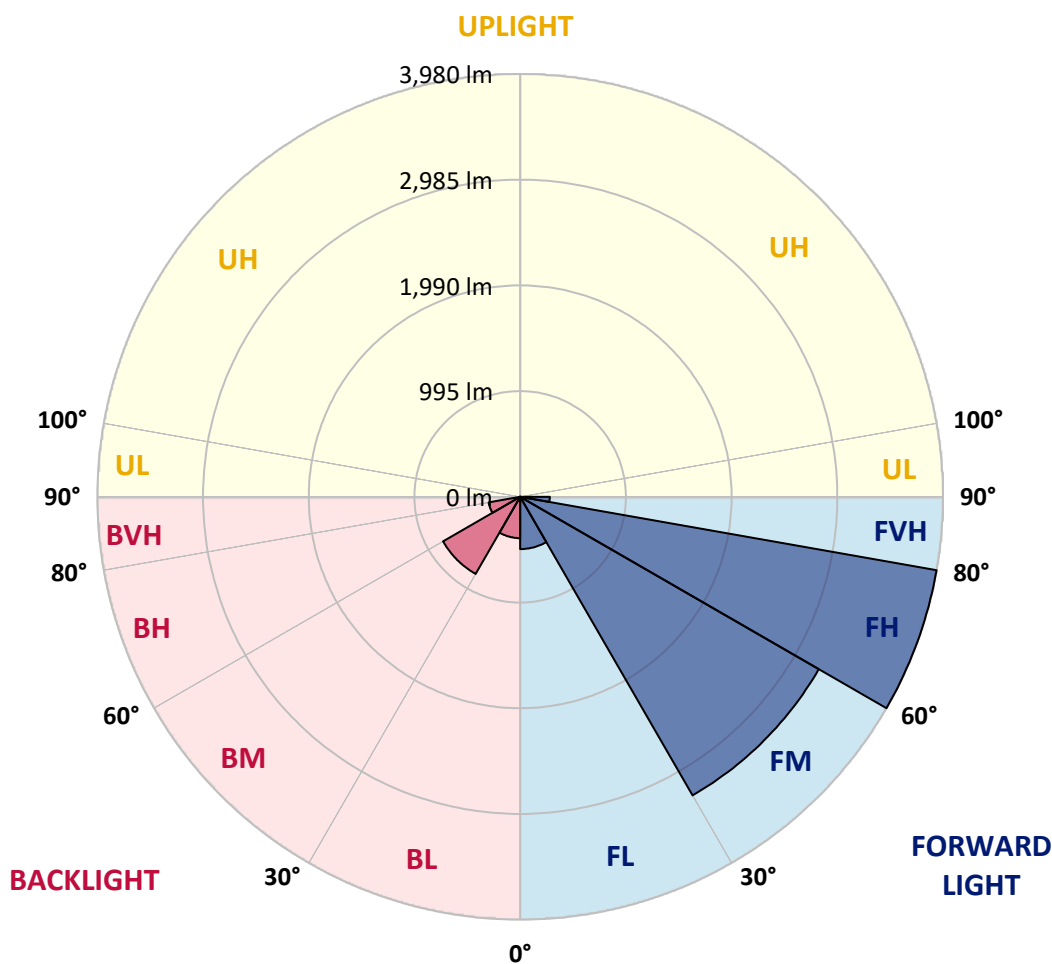
CATALOG NUMBER: VERD-CA2-70-740-U-T4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 492.1 | 5.2 | | | |
| FM (30°-60°) | 3244.9 | 34.0 | | | |
| FH (60°-80°) | 3980.0 | 41.8 | | | G2/5000 |
| FVH (80°-90°) | 278.7 | 2.9 | | | G3/500 |
| BL (0°-30°) | 389.1 | 4.1 | B1/500 | | |
| BM (30°-60°) | 838.7 | 8.8 | B1/1000 | | |
| BH (60°-80°) | 301.4 | 3.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 8.1 | 0.1 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short





REPORT NUMBER: P509320

CATALOG NUMBER: VERD-CA2-70-740-U-T4-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 |
| 2.5° | 1058.1 | 1068.4 | 1067.3 | 1066.1 | 1066.1 | 1065.0 | 1058.1 | 1051.3 | 1054.7 | 1053.6 | 1052.4 |
| 5° | 1062.7 | 1073.0 | 1071.8 | 1070.7 | 1070.7 | 1071.8 | 1061.6 | 1053.6 | 1055.9 | 1058.1 | 1057.0 |
| 7.5° | 1065.0 | 1074.1 | 1071.8 | 1070.7 | 1069.5 | 1073.0 | 1065.0 | 1066.1 | 1068.4 | 1068.4 | 1068.4 |
| 10° | 1068.4 | 1075.2 | 1075.2 | 1076.4 | 1077.5 | 1080.9 | 1077.5 | 1080.9 | 1090.1 | 1087.8 | 1093.5 |
| 12.5° | 1059.3 | 1067.3 | 1070.7 | 1076.4 | 1082.1 | 1084.4 | 1087.8 | 1096.9 | 1108.3 | 1114.0 | 1119.7 |
| 15° | 1055.9 | 1063.8 | 1069.5 | 1076.4 | 1085.5 | 1087.8 | 1096.9 | 1112.9 | 1126.5 | 1138.0 | 1150.5 |
| 17.5° | 1067.3 | 1076.4 | 1084.4 | 1088.9 | 1093.5 | 1096.9 | 1106.0 | 1126.5 | 1150.5 | 1171.0 | 1189.3 |
| 20° | 1088.9 | 1098.0 | 1107.2 | 1111.7 | 1115.1 | 1117.4 | 1124.3 | 1143.7 | 1174.4 | 1206.4 | 1232.6 |
| 22.5° | 1114.0 | 1123.1 | 1133.4 | 1136.8 | 1144.8 | 1144.8 | 1145.9 | 1165.3 | 1202.9 | 1246.3 | 1278.2 |
| 25° | 1141.4 | 1147.1 | 1156.2 | 1161.9 | 1173.3 | 1175.6 | 1179.0 | 1196.1 | 1242.9 | 1291.9 | 1342.1 |
| 27.5° | 1173.3 | 1184.7 | 1193.8 | 1200.7 | 1223.5 | 1224.6 | 1222.3 | 1244.0 | 1289.6 | 1350.0 | 1420.7 |
| 30° | 1231.4 | 1244.0 | 1253.1 | 1264.5 | 1294.2 | 1293.0 | 1307.8 | 1330.6 | 1356.9 | 1423.0 | 1517.6 |
| 32.5° | 1323.8 | 1324.9 | 1329.5 | 1344.3 | 1386.5 | 1391.1 | 1419.6 | 1460.6 | 1513.1 | 1555.3 | 1655.6 |
| 35° | 1492.6 | 1486.9 | 1473.2 | 1470.9 | 1499.4 | 1501.7 | 1557.6 | 1644.2 | 1758.2 | 1898.5 | 2053.6 |
| 37.5° | 1689.8 | 1704.6 | 1688.7 | 1639.7 | 1644.2 | 1645.4 | 1711.5 | 1822.1 | 2034.2 | 2385.4 | 2532.5 |
| 40° | 2036.5 | 2044.4 | 1945.2 | 1867.7 | 1840.3 | 1827.8 | 1862.0 | 2029.6 | 2301.0 | 2758.2 | 2862.0 |
| 42.5° | 2342.0 | 2342.0 | 2249.7 | 2130.0 | 2060.4 | 2069.5 | 2059.3 | 2225.7 | 2574.6 | 3082.0 | 3119.7 |
| 45° | 2647.6 | 2637.4 | 2553.0 | 2452.6 | 2330.6 | 2322.7 | 2296.4 | 2424.1 | 2826.6 | 3314.7 | 3315.8 |
| 47.5° | 2932.7 | 2956.6 | 2830.1 | 2719.5 | 2595.2 | 2589.5 | 2542.7 | 2641.9 | 3068.4 | 3518.8 | 3488.0 |
| 50° | 3232.6 | 3265.6 | 3107.1 | 2982.8 | 2848.3 | 2856.3 | 2817.5 | 2887.1 | 3309.0 | 3709.2 | 3653.3 |
| 52.5° | 3659.0 | 3597.4 | 3408.2 | 3236.0 | 3096.9 | 3119.7 | 3079.8 | 3120.8 | 3558.7 | 3860.8 | 3744.5 |
| 55° | 4116.2 | 4006.8 | 3849.4 | 3560.9 | 3359.1 | 3356.8 | 3327.2 | 3376.2 | 3810.7 | 4034.1 | 3848.3 |
| 57.5° | 4361.4 | 4394.5 | 4358.0 | 4124.2 | 3798.1 | 3792.4 | 3614.5 | 3620.2 | 4042.1 | 4182.4 | 3993.1 |
| 60° | 4640.7 | 4681.8 | 4761.6 | 4615.7 | 4452.6 | 4457.2 | 4013.6 | 3881.3 | 4286.1 | 4301.0 | 4004.5 |
| 62.5° | 4789.0 | 4793.5 | 4977.1 | 5028.4 | 5160.7 | 5190.3 | 4854.0 | 4200.6 | 4448.0 | 4392.2 | 4023.9 |
| 65° | 4526.7 | 4534.7 | 4888.2 | 5147.0 | 5588.3 | 5628.2 | 5483.4 | 4818.6 | 4568.9 | 4440.1 | 4005.6 |
| 67.5° | 4042.1 | 4107.1 | 4364.8 | 4982.8 | 5905.3 | 5911.0 | 5619.1 | 5275.9 | 4611.1 | 4446.9 | 3917.8 |
| 70° | 3387.6 | 3364.8 | 3690.9 | 4433.2 | 5856.2 | 5814.0 | 5559.8 | 5328.3 | 4580.3 | 4353.4 | 3517.6 |
| 72.5° | 2511.9 | 2477.7 | 2814.1 | 3564.4 | 5282.7 | 5362.5 | 5294.1 | 5021.6 | 4464.0 | 4004.5 | 2855.1 |
| 75° | 1719.5 | 1759.4 | 2061.5 | 2687.5 | 4387.6 | 4508.5 | 4810.6 | 4784.4 | 3971.4 | 3319.2 | 1954.4 |
| 77.5° | 1176.7 | 1193.8 | 1452.7 | 2000.0 | 3477.7 | 3524.5 | 4025.0 | 3865.4 | 2920.1 | 2039.9 | 652.2 |
| 80° | 766.2 | 760.5 | 993.1 | 1424.1 | 2549.6 | 2543.9 | 2874.5 | 2445.8 | 1573.5 | 695.5 | 90.1 |
| 82.5° | 427.6 | 452.7 | 595.2 | 936.1 | 1722.9 | 1741.1 | 1794.7 | 1337.5 | 605.5 | 81.0 | 57.0 |
| 85° | 240.6 | 250.9 | 342.1 | 530.2 | 903.1 | 948.7 | 800.4 | 491.4 | 108.3 | 44.5 | 33.1 |
| 87.5° | 57.0 | 54.7 | 109.5 | 203.0 | 150.5 | 163.1 | 77.5 | 22.8 | 11.4 | 8.0 | 8.0 |
| 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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 CATALOG NUMBER: VERD-CA2-70-740-U-T4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 | 1053.6 |
| 2.5° | 1052.4 | 1050.2 | 1047.9 | 1043.3 | 1039.9 | 1029.6 | 1030.8 | 1037.6 | 1030.8 | 1042.2 | 1035.3 |
| 5° | 1054.7 | 1051.3 | 1045.6 | 1031.9 | 1021.6 | 1013.7 | 1011.4 | 1010.2 | 1001.1 | 1011.4 | 1006.8 |
| 7.5° | 1063.8 | 1060.4 | 1047.9 | 1033.0 | 1018.2 | 994.3 | 990.9 | 986.3 | 969.2 | 976.0 | 970.3 |
| 10° | 1085.5 | 1080.9 | 1059.3 | 1038.8 | 1015.9 | 984.0 | 965.8 | 952.1 | 932.7 | 935.0 | 929.3 |
| 12.5° | 1112.9 | 1108.3 | 1083.2 | 1049.0 | 1017.1 | 972.6 | 940.7 | 914.5 | 886.0 | 886.0 | 880.3 |
| 15° | 1144.8 | 1140.2 | 1111.7 | 1071.8 | 1021.6 | 963.5 | 915.6 | 873.4 | 827.8 | 822.1 | 815.3 |
| 17.5° | 1188.1 | 1181.3 | 1148.2 | 1096.9 | 1034.2 | 955.5 | 890.5 | 827.8 | 758.3 | 736.6 | 725.2 |
| 20° | 1232.6 | 1224.6 | 1196.1 | 1132.2 | 1051.3 | 947.5 | 854.0 | 768.5 | 678.4 | 634.0 | 626.0 |
| 22.5° | 1289.6 | 1287.3 | 1252.0 | 1163.0 | 1057.0 | 930.4 | 808.4 | 702.4 | 581.5 | 519.9 | 507.4 |
| 25° | 1356.9 | 1353.5 | 1298.7 | 1187.0 | 1050.2 | 896.2 | 743.4 | 607.7 | 472.1 | 410.5 | 396.8 |
| 27.5° | 1436.7 | 1427.6 | 1338.6 | 1192.7 | 1030.8 | 842.6 | 660.2 | 485.7 | 348.9 | 296.5 | 286.2 |
| 30° | 1521.1 | 1507.4 | 1380.8 | 1193.8 | 992.0 | 776.5 | 550.7 | 356.9 | 247.4 | 209.8 | 209.8 |
| 32.5° | 1662.5 | 1615.7 | 1421.9 | 1177.9 | 936.1 | 681.9 | 419.6 | 240.6 | 173.3 | 158.5 | 158.5 |
| 35° | 1965.8 | 1854.0 | 1486.9 | 1157.3 | 863.2 | 564.4 | 285.1 | 163.1 | 144.8 | 144.8 | 143.7 |
| 37.5° | 2420.7 | 2213.2 | 1597.5 | 1123.1 | 764.0 | 419.6 | 188.1 | 134.5 | 138.0 | 138.0 | 138.0 |
| 40° | 2711.5 | 2493.7 | 1748.0 | 1069.5 | 649.9 | 285.1 | 134.5 | 127.7 | 130.0 | 132.3 | 132.3 |
| 42.5° | 2982.8 | 2737.7 | 1898.5 | 995.4 | 524.5 | 182.4 | 125.4 | 119.7 | 120.9 | 120.9 | 122.0 |
| 45° | 3155.0 | 2919.0 | 2010.2 | 916.7 | 386.5 | 130.0 | 123.1 | 112.9 | 109.5 | 109.5 | 111.7 |
| 47.5° | 3314.7 | 3037.6 | 2059.3 | 813.0 | 249.7 | 122.0 | 117.4 | 104.9 | 100.3 | 99.2 | 99.2 |
| 50° | 3474.3 | 3159.6 | 2086.6 | 689.8 | 156.2 | 117.4 | 108.3 | 95.8 | 91.2 | 90.1 | 90.1 |
| 52.5° | 3545.0 | 3198.3 | 2025.1 | 550.7 | 116.3 | 112.9 | 101.5 | 87.8 | 81.0 | 81.0 | 81.0 |
| 55° | 3619.1 | 3270.2 | 1921.3 | 394.5 | 110.6 | 104.9 | 93.5 | 78.7 | 73.0 | 75.3 | 75.3 |
| 57.5° | 3701.2 | 3218.9 | 1810.7 | 256.6 | 109.5 | 94.6 | 83.2 | 70.7 | 66.1 | 68.4 | 69.6 |
| 60° | 3676.1 | 3231.4 | 1652.2 | 172.2 | 104.9 | 86.7 | 75.3 | 62.7 | 59.3 | 59.3 | 59.3 |
| 62.5° | 3676.1 | 3134.5 | 1392.2 | 131.1 | 95.8 | 79.8 | 69.6 | 58.2 | 52.5 | 50.2 | 47.9 |
| 65° | 3579.2 | 2905.3 | 1017.1 | 114.0 | 85.5 | 74.1 | 62.7 | 51.3 | 44.5 | 41.0 | 39.9 |
| 67.5° | 3286.1 | 2525.6 | 409.3 | 103.8 | 78.7 | 68.4 | 58.2 | 46.7 | 38.8 | 34.2 | 33.1 |
| 70° | 2793.6 | 1864.3 | 117.4 | 92.4 | 79.8 | 63.9 | 54.7 | 41.0 | 34.2 | 28.5 | 27.4 |
| 72.5° | 2070.7 | 985.2 | 95.8 | 73.0 | 70.7 | 54.7 | 51.3 | 38.8 | 29.6 | 23.9 | 22.8 |
| 75° | 1045.6 | 134.5 | 82.1 | 52.5 | 54.7 | 57.0 | 49.0 | 34.2 | 27.4 | 19.4 | 18.2 |
| 77.5° | 108.3 | 79.8 | 71.8 | 35.3 | 38.8 | 39.9 | 42.2 | 31.9 | 23.9 | 16.0 | 14.8 |
| 80° | 67.3 | 60.4 | 70.7 | 30.8 | 22.8 | 27.4 | 28.5 | 25.1 | 19.4 | 12.5 | 12.5 |
| 82.5° | 47.9 | 51.3 | 52.5 | 19.4 | 17.1 | 16.0 | 14.8 | 14.8 | 17.1 | 11.4 | 11.4 |
| 85° | 33.1 | 34.2 | 21.7 | 12.5 | 11.4 | 10.3 | 9.1 | 9.1 | 8.0 | 9.1 | 8.0 |
| 87.5° | 8.0 | 6.8 | 6.8 | 6.8 | 5.7 | 5.7 | 4.6 | 4.6 | 4.6 | 4.6 | 5.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)