

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: P509321

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

Issue Date: 3/4/2021

Test Information

Test Method: LM-79-08
Report Number: P509321
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-139-6)
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
Description: VERDEON ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 980mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10578 lumens
Efficiency: N/A
Efficacy: 143.7 lumens/watt
Luminous Opening: Rectangular (W 0.79' x L: 1.25' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

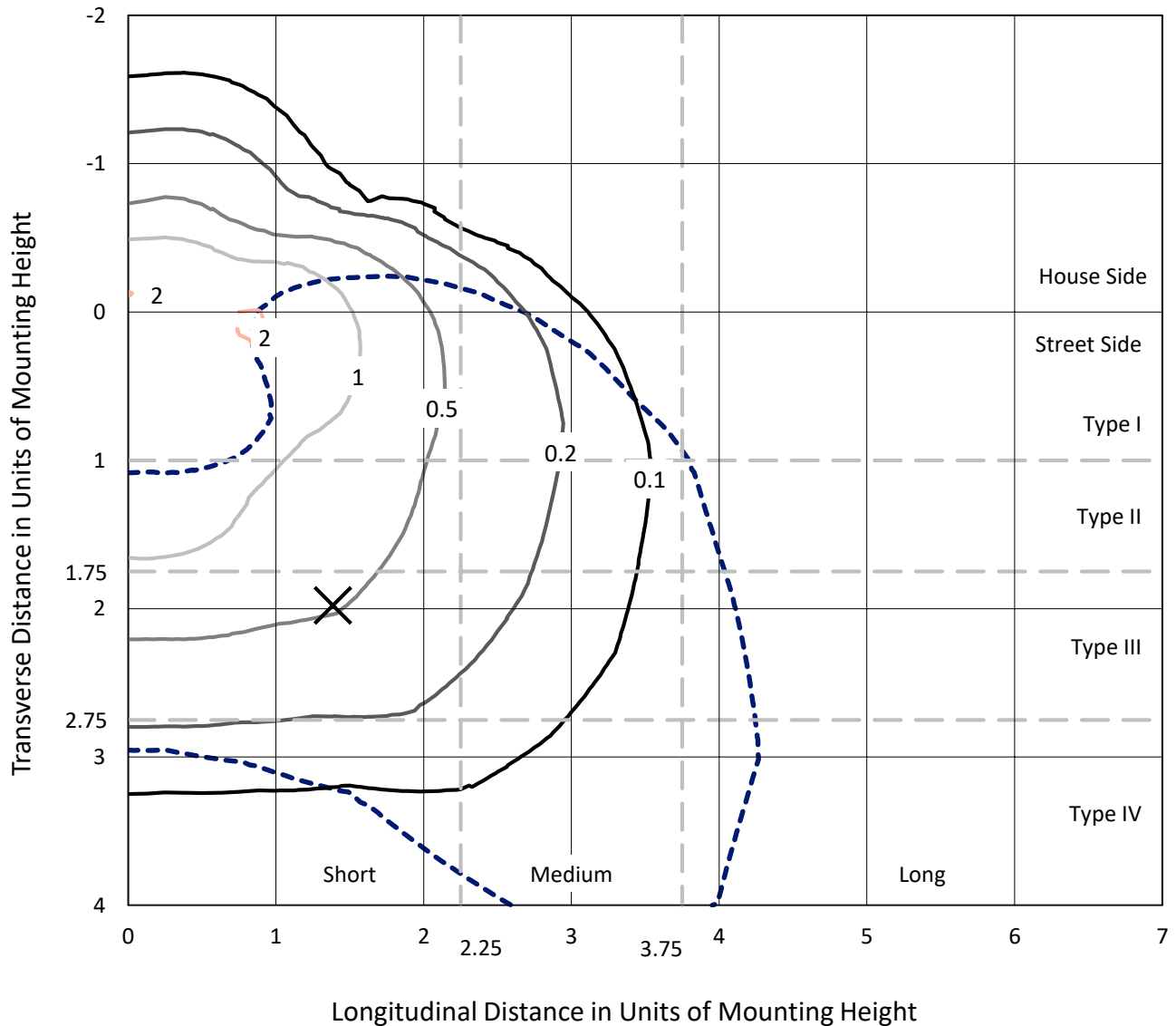
Input Watts (W): 73.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P509321
 CATALOG NUMBER: VERD-CA2-70-740-U-T4

Iso-Footcandle Lines of Horizontal Illumination

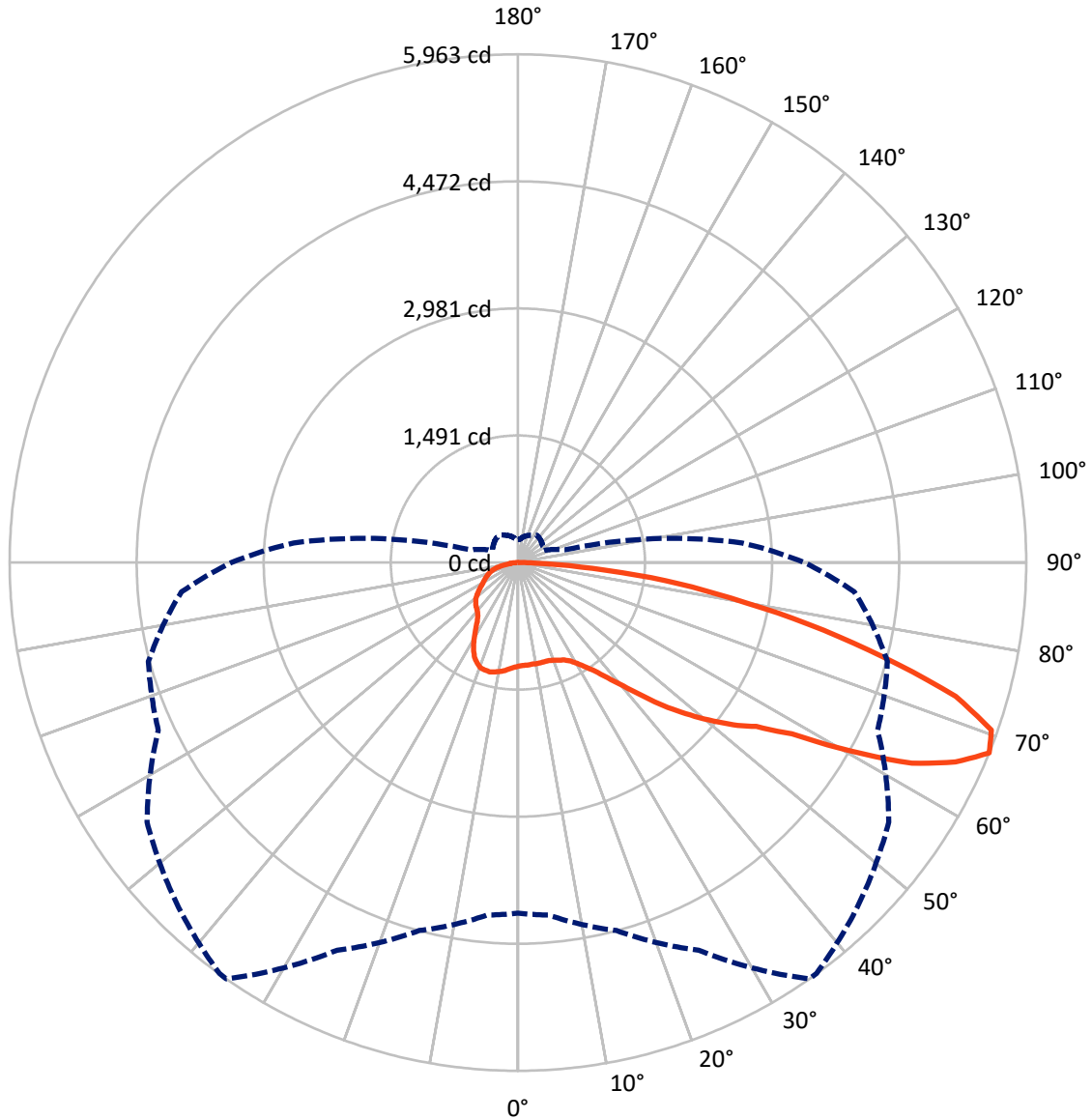
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type IV - Short - N/A

REPORT NUMBER: P509321
CATALOG NUMBER: VERD-CA2-70-740-U-T4

Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P509321

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

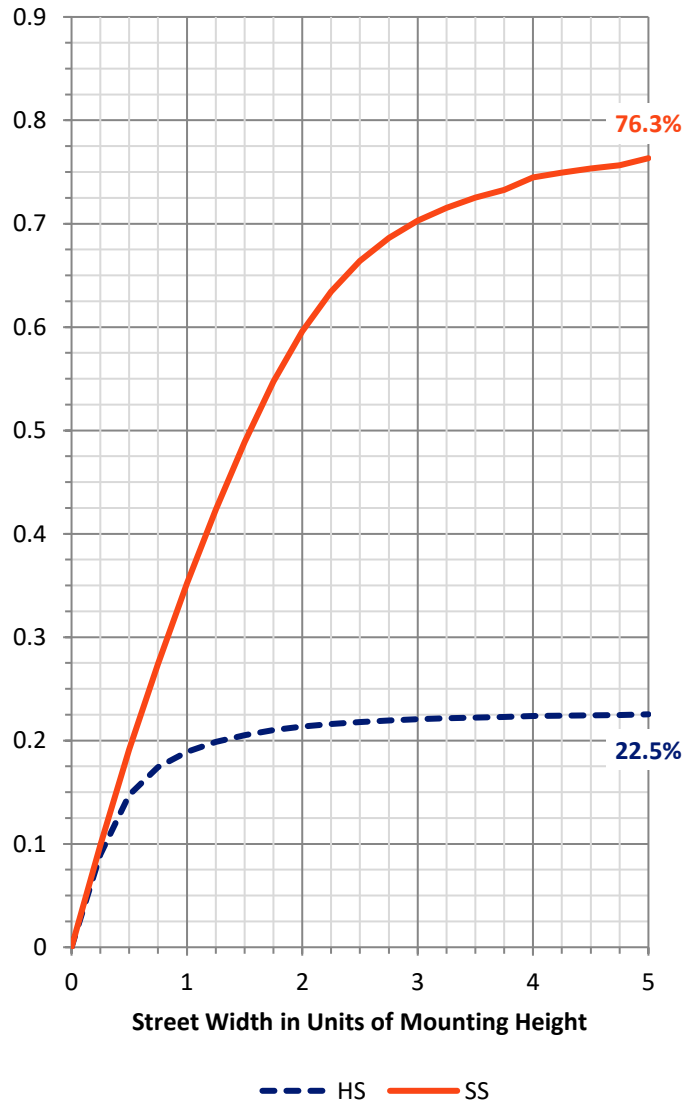
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2409.9 | 0.0 | 2409.9 |
| | % Fixture | 22.8 | 0.0 | 22.8 |
| Street Side | Lumens | 8168.1 | 0.0 | 8168.1 |
| | % Fixture | 77.2 | 0.0 | 77.2 |
| Total | Lumens | 10578.0 | 0.0 | 10578.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 117.6 | 1.1 |
| 10°-20° | 360.8 | 3.4 |
| 20°-30° | 602.2 | 5.7 |
| 30°-40° | 926.6 | 8.8 |
| 40°-50° | 1526.9 | 14.4 |
| 50°-60° | 2181.0 | 20.6 |
| 60°-70° | 2715.4 | 25.7 |
| 70°-80° | 1832.5 | 17.3 |
| 80°-90° | 315.0 | 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° | 10578.0 | 100.0 |
| 0°-180° | 10578.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P509321

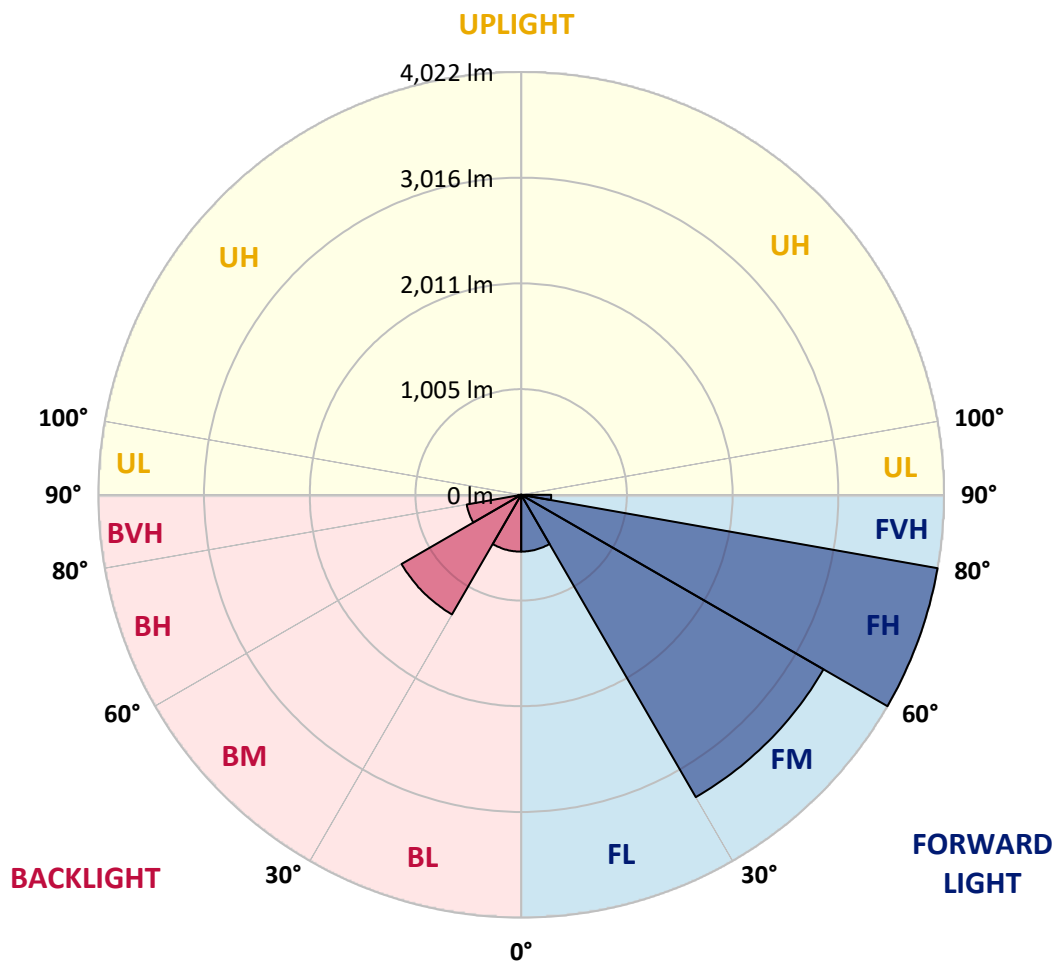
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 539.8 | 5.1 | | | |
| FM (30°-60°) | 3320.6 | 31.4 | | | |
| FH (60°-80°) | 4021.8 | 38.0 | | | G2/5000 |
| FVH (80°-90°) | 285.9 | 2.7 | | | G3/500 |
| BL (0°-30°) | 540.9 | 5.1 | B2/1000 | | |
| BM (30°-60°) | 1313.9 | 12.4 | B2/2500 | | |
| BH (60°-80°) | 526.1 | 5.0 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 29.1 | 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





REPORT NUMBER: P509321

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

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 |
| 2.5° | 1198.4 | 1209.8 | 1208.7 | 1206.4 | 1207.6 | 1208.7 | 1203.0 | 1199.6 | 1204.1 | 1205.3 | 1211.0 |
| 5° | 1197.3 | 1206.4 | 1205.3 | 1205.3 | 1208.7 | 1207.6 | 1198.4 | 1191.6 | 1199.6 | 1205.3 | 1211.0 |
| 7.5° | 1196.2 | 1204.1 | 1204.1 | 1200.7 | 1203.0 | 1203.0 | 1198.4 | 1203.0 | 1203.0 | 1212.1 | 1219.0 |
| 10° | 1195.0 | 1201.9 | 1201.9 | 1203.0 | 1206.4 | 1207.6 | 1207.6 | 1211.0 | 1223.5 | 1227.0 | 1240.6 |
| 12.5° | 1181.3 | 1187.0 | 1191.6 | 1198.4 | 1205.3 | 1207.6 | 1213.3 | 1223.5 | 1239.5 | 1247.5 | 1263.4 |
| 15° | 1169.9 | 1177.9 | 1185.9 | 1192.7 | 1203.0 | 1205.3 | 1217.8 | 1234.9 | 1252.0 | 1269.1 | 1293.1 |
| 17.5° | 1174.5 | 1184.8 | 1193.9 | 1199.6 | 1207.6 | 1209.8 | 1222.4 | 1245.2 | 1272.6 | 1297.6 | 1330.7 |
| 20° | 1184.8 | 1196.2 | 1205.3 | 1212.1 | 1222.4 | 1224.7 | 1234.9 | 1256.6 | 1291.9 | 1330.7 | 1368.3 |
| 22.5° | 1209.8 | 1217.8 | 1228.1 | 1231.5 | 1242.9 | 1245.2 | 1252.0 | 1273.7 | 1319.3 | 1368.3 | 1416.2 |
| 25° | 1232.7 | 1241.8 | 1249.8 | 1253.2 | 1265.7 | 1268.0 | 1280.5 | 1298.8 | 1352.4 | 1408.3 | 1477.8 |
| 27.5° | 1262.3 | 1271.4 | 1281.7 | 1285.1 | 1306.8 | 1309.1 | 1314.8 | 1342.1 | 1395.7 | 1460.7 | 1547.4 |
| 30° | 1319.3 | 1325.0 | 1336.4 | 1350.1 | 1371.8 | 1374.0 | 1386.6 | 1415.1 | 1453.9 | 1533.7 | 1648.9 |
| 32.5° | 1406.0 | 1414.0 | 1409.4 | 1427.6 | 1459.6 | 1459.6 | 1502.9 | 1550.8 | 1598.7 | 1654.6 | 1807.4 |
| 35° | 1572.5 | 1567.9 | 1563.3 | 1547.4 | 1566.8 | 1573.6 | 1634.0 | 1715.0 | 1848.4 | 2005.8 | 2156.3 |
| 37.5° | 1778.9 | 1777.7 | 1753.8 | 1717.3 | 1716.1 | 1718.4 | 1773.1 | 1910.0 | 2122.1 | 2472.1 | 2634.1 |
| 40° | 2095.9 | 2105.0 | 2020.6 | 1945.3 | 1903.1 | 1894.0 | 1937.4 | 2109.5 | 2394.6 | 2861.0 | 2971.6 |
| 42.5° | 2412.9 | 2393.5 | 2325.0 | 2203.0 | 2132.3 | 2126.6 | 2134.6 | 2285.1 | 2659.2 | 3175.7 | 3215.6 |
| 45° | 2693.4 | 2708.2 | 2601.0 | 2526.9 | 2396.9 | 2399.2 | 2363.8 | 2501.8 | 2921.4 | 3398.1 | 3404.9 |
| 47.5° | 2979.6 | 2991.0 | 2857.6 | 2773.2 | 2648.9 | 2648.9 | 2593.0 | 2702.5 | 3155.2 | 3610.2 | 3596.5 |
| 50° | 3285.2 | 3311.4 | 3143.8 | 3016.1 | 2902.0 | 2897.5 | 2880.4 | 2948.8 | 3385.5 | 3789.2 | 3734.4 |
| 52.5° | 3698.0 | 3607.9 | 3449.4 | 3276.0 | 3163.2 | 3149.5 | 3133.5 | 3182.5 | 3650.1 | 3935.1 | 3823.4 |
| 55° | 4124.4 | 4002.4 | 3840.5 | 3607.9 | 3394.6 | 3414.0 | 3374.1 | 3430.0 | 3892.9 | 4109.6 | 3939.7 |
| 57.5° | 4383.3 | 4428.9 | 4341.1 | 4141.5 | 3790.3 | 3786.9 | 3636.4 | 3666.0 | 4110.7 | 4256.7 | 4062.8 |
| 60° | 4655.8 | 4719.7 | 4779.0 | 4660.4 | 4493.9 | 4418.6 | 4032.1 | 3916.9 | 4355.9 | 4363.9 | 4049.2 |
| 62.5° | 4798.3 | 4785.8 | 5043.5 | 5057.2 | 5186.0 | 5195.2 | 4817.7 | 4241.9 | 4500.7 | 4454.0 | 4097.1 |
| 65° | 4544.1 | 4550.9 | 4975.1 | 5196.3 | 5639.9 | 5666.1 | 5528.1 | 4813.2 | 4622.7 | 4496.2 | 4042.3 |
| 67.5° | 4113.0 | 4151.8 | 4469.9 | 5017.3 | 5962.6 | 5958.0 | 5659.3 | 5310.3 | 4654.7 | 4487.0 | 3962.5 |
| 70° | 3363.9 | 3404.9 | 3731.0 | 4525.8 | 5891.9 | 5854.2 | 5603.4 | 5350.2 | 4627.3 | 4404.9 | 3564.5 |
| 72.5° | 2580.5 | 2574.8 | 2912.3 | 3614.7 | 5371.9 | 5408.4 | 5317.2 | 5068.6 | 4496.2 | 4053.7 | 2920.3 |
| 75° | 1818.8 | 1790.3 | 2090.1 | 2740.1 | 4430.0 | 4564.6 | 4875.9 | 4807.5 | 4000.1 | 3336.5 | 1952.2 |
| 77.5° | 1193.9 | 1237.2 | 1476.7 | 2026.3 | 3483.6 | 3596.5 | 4026.4 | 3890.7 | 2960.2 | 2128.9 | 704.7 |
| 80° | 758.3 | 797.1 | 990.9 | 1447.0 | 2532.6 | 2583.9 | 2935.1 | 2474.4 | 1581.6 | 702.4 | 98.1 |
| 82.5° | 460.7 | 466.4 | 638.6 | 978.4 | 1746.9 | 1746.9 | 1848.4 | 1383.2 | 619.2 | 91.2 | 63.9 |
| 85° | 245.2 | 258.8 | 344.4 | 528.0 | 880.3 | 946.4 | 838.1 | 528.0 | 119.7 | 50.2 | 38.8 |
| 87.5° | 77.5 | 78.7 | 112.9 | 204.1 | 189.3 | 195.0 | 65.0 | 27.4 | 13.7 | 9.1 | 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 |



REPORT NUMBER: P509321
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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 | 1215.5 |
| 2.5° | 1213.3 | 1214.4 | 1221.2 | 1224.7 | 1225.8 | 1222.4 | 1230.4 | 1241.8 | 1238.4 | 1250.9 | 1246.3 |
| 5° | 1213.3 | 1219.0 | 1228.1 | 1227.0 | 1236.1 | 1240.6 | 1249.8 | 1261.2 | 1257.7 | 1276.0 | 1269.1 |
| 7.5° | 1222.4 | 1231.5 | 1238.4 | 1252.0 | 1258.9 | 1256.6 | 1277.1 | 1286.2 | 1281.7 | 1295.4 | 1288.5 |
| 10° | 1245.2 | 1255.5 | 1264.6 | 1279.4 | 1289.7 | 1285.1 | 1296.5 | 1302.2 | 1294.2 | 1307.9 | 1304.5 |
| 12.5° | 1271.4 | 1282.8 | 1301.1 | 1311.3 | 1319.3 | 1311.3 | 1311.3 | 1307.9 | 1296.5 | 1309.1 | 1301.1 |
| 15° | 1301.1 | 1315.9 | 1341.0 | 1352.4 | 1350.1 | 1336.4 | 1323.9 | 1299.9 | 1269.1 | 1274.8 | 1263.4 |
| 17.5° | 1341.0 | 1359.2 | 1387.7 | 1394.6 | 1385.5 | 1352.4 | 1319.3 | 1276.0 | 1221.2 | 1207.6 | 1198.4 |
| 20° | 1384.3 | 1404.8 | 1444.7 | 1441.3 | 1420.8 | 1362.6 | 1310.2 | 1242.9 | 1157.4 | 1118.6 | 1100.4 |
| 22.5° | 1443.6 | 1464.1 | 1501.8 | 1481.2 | 1439.0 | 1362.6 | 1273.7 | 1180.2 | 1078.7 | 1021.7 | 1009.2 |
| 25° | 1508.6 | 1537.1 | 1553.1 | 1507.5 | 1434.5 | 1331.9 | 1224.7 | 1101.5 | 971.5 | 910.0 | 897.4 |
| 27.5° | 1588.4 | 1607.8 | 1591.8 | 1510.9 | 1411.7 | 1280.5 | 1144.8 | 996.6 | 872.3 | 819.9 | 801.6 |
| 30° | 1681.9 | 1684.2 | 1621.5 | 1504.0 | 1360.4 | 1207.6 | 1046.8 | 890.6 | 794.8 | 745.7 | 734.3 |
| 32.5° | 1806.2 | 1783.4 | 1647.7 | 1472.1 | 1290.8 | 1107.2 | 937.3 | 819.9 | 740.0 | 678.5 | 662.5 |
| 35° | 2130.1 | 2026.3 | 1705.9 | 1435.6 | 1206.4 | 995.5 | 842.7 | 756.0 | 688.7 | 619.2 | 606.6 |
| 37.5° | 2549.7 | 2366.1 | 1808.5 | 1398.0 | 1110.6 | 892.8 | 780.0 | 718.4 | 661.4 | 583.8 | 566.7 |
| 40° | 2864.4 | 2652.3 | 1967.0 | 1356.9 | 1022.8 | 819.9 | 745.7 | 703.6 | 640.8 | 570.1 | 551.9 |
| 42.5° | 3105.0 | 2890.6 | 2130.1 | 1311.3 | 940.7 | 762.9 | 721.8 | 693.3 | 632.9 | 566.7 | 551.9 |
| 45° | 3271.5 | 3057.1 | 2270.3 | 1257.7 | 835.8 | 713.8 | 703.6 | 676.2 | 618.0 | 554.2 | 539.4 |
| 47.5° | 3440.3 | 3174.6 | 2349.0 | 1201.9 | 748.0 | 686.5 | 677.3 | 646.5 | 593.0 | 532.5 | 521.1 |
| 50° | 3587.3 | 3308.0 | 2416.3 | 1144.8 | 678.5 | 653.4 | 647.7 | 606.6 | 555.3 | 498.3 | 483.5 |
| 52.5° | 3629.5 | 3339.9 | 2388.9 | 1141.4 | 615.8 | 618.0 | 606.6 | 573.6 | 525.7 | 464.1 | 449.3 |
| 55° | 3725.3 | 3428.8 | 2322.8 | 1036.5 | 555.3 | 563.3 | 561.0 | 543.9 | 499.4 | 442.4 | 431.0 |
| 57.5° | 3766.4 | 3361.6 | 2227.0 | 770.8 | 492.6 | 499.4 | 518.8 | 518.8 | 480.1 | 428.7 | 418.5 |
| 60° | 3760.7 | 3363.9 | 2055.9 | 539.4 | 431.0 | 449.3 | 476.6 | 476.6 | 445.9 | 395.7 | 383.1 |
| 62.5° | 3717.3 | 3277.2 | 1772.0 | 411.6 | 392.3 | 418.5 | 450.4 | 429.9 | 402.5 | 346.6 | 337.5 |
| 65° | 3645.5 | 3038.9 | 1228.1 | 361.5 | 370.6 | 401.4 | 417.3 | 392.3 | 359.2 | 309.0 | 303.3 |
| 67.5° | 3358.2 | 2639.8 | 571.3 | 330.7 | 352.3 | 376.3 | 390.0 | 354.6 | 320.4 | 274.8 | 268.0 |
| 70° | 2858.7 | 1931.6 | 246.3 | 306.7 | 330.7 | 347.8 | 361.5 | 325.0 | 288.5 | 248.6 | 246.3 |
| 72.5° | 2078.7 | 1030.8 | 205.3 | 269.1 | 294.2 | 312.4 | 329.5 | 293.1 | 257.7 | 211.0 | 211.0 |
| 75° | 1001.2 | 171.0 | 176.7 | 223.5 | 246.3 | 282.8 | 290.8 | 239.5 | 199.6 | 160.8 | 157.4 |
| 77.5° | 123.2 | 110.6 | 152.8 | 177.9 | 197.3 | 216.7 | 236.0 | 207.5 | 172.2 | 132.3 | 125.4 |
| 80° | 77.5 | 77.5 | 120.9 | 124.3 | 134.6 | 155.1 | 173.3 | 161.9 | 135.7 | 76.4 | 70.7 |
| 82.5° | 57.0 | 61.6 | 79.8 | 59.3 | 70.7 | 88.9 | 101.5 | 115.2 | 98.1 | 53.6 | 50.2 |
| 85° | 36.5 | 39.9 | 37.6 | 29.6 | 38.8 | 59.3 | 81.0 | 79.8 | 66.1 | 39.9 | 37.6 |
| 87.5° | 8.0 | 8.0 | 8.0 | 6.8 | 8.0 | 10.3 | 19.4 | 37.6 | 27.4 | 21.7 | 20.5 |
| 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)