

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: P198712

Luminaire Tested: **XNV-AF-01-LED-U-SL3-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV-AF-01-LED-U-SL3-1200-HSS
Description: XNV ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5761.2 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

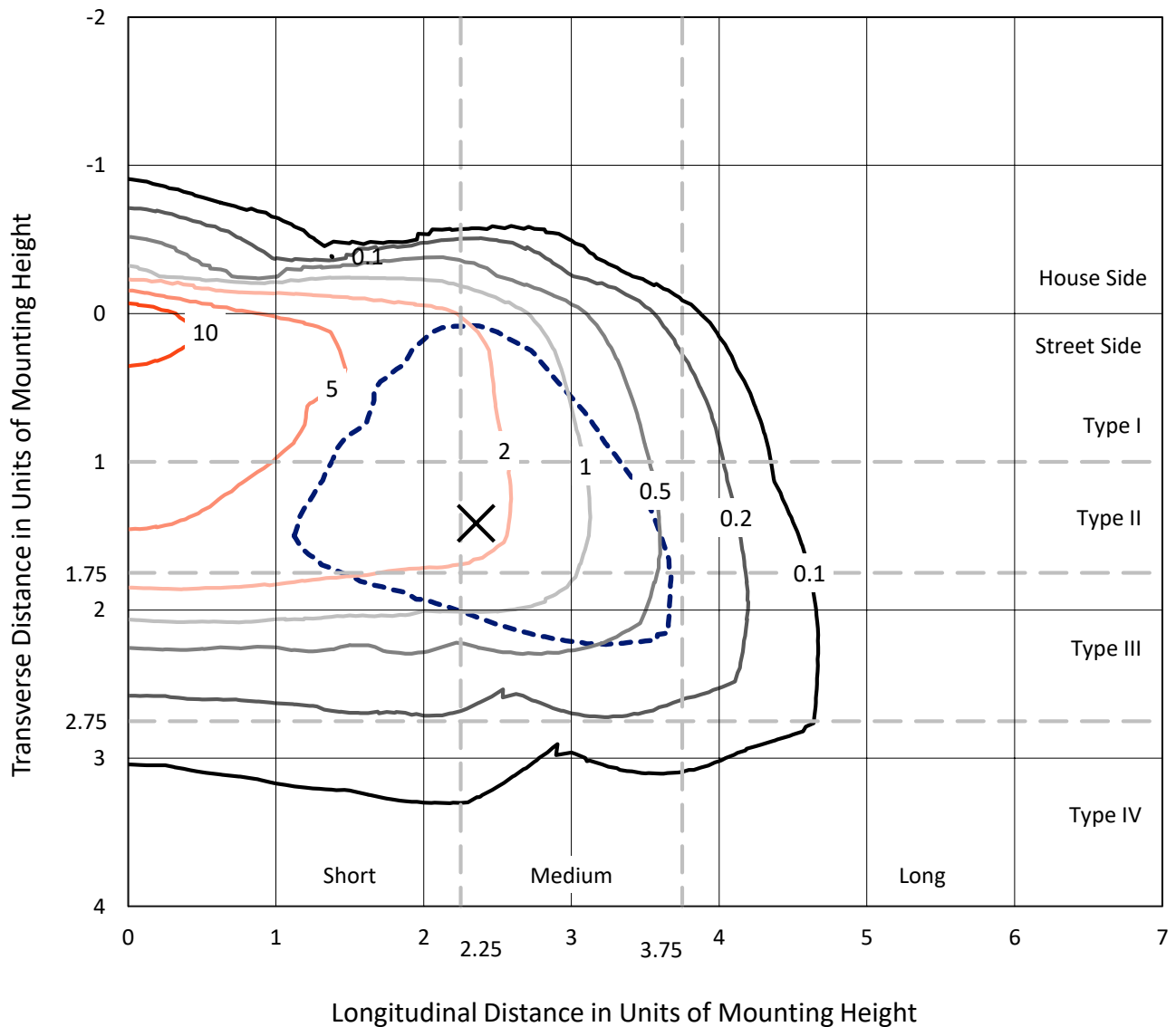
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

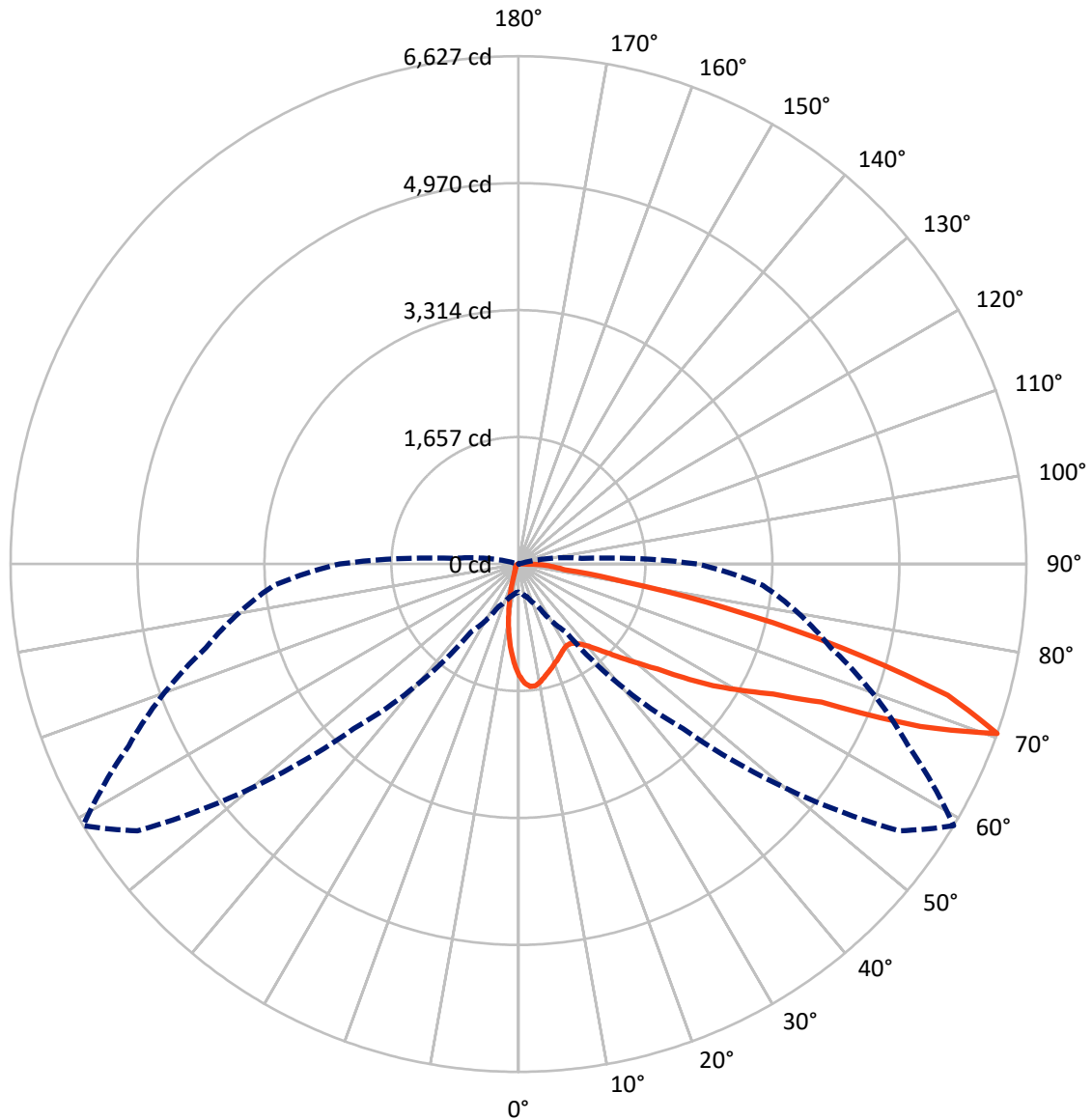
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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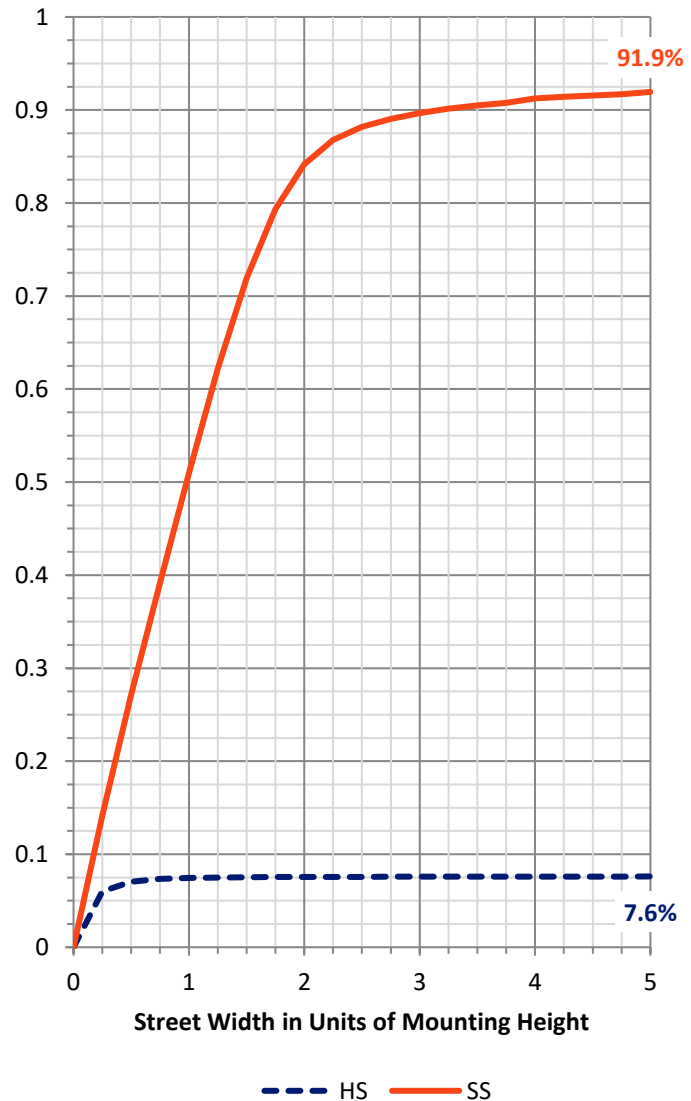
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 442.9 | 0.0 | 442.9 |
| | % Fixture | 7.7 | 0.0 | 7.7 |
| Street Side | Lumens | 5318.4 | 0.0 | 5318.4 |
| | % Fixture | 92.3 | 0.0 | 92.3 |
| Total | Lumens | 5761.2 | 0.0 | 5761.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.8 | 2.1 |
| 10°-20° | 251.3 | 4.4 |
| 20°-30° | 340.1 | 5.9 |
| 30°-40° | 490.9 | 8.5 |
| 40°-50° | 815.2 | 14.1 |
| 50°-60° | 1246.9 | 21.6 |
| 60°-70° | 1550.9 | 26.9 |
| 70°-80° | 857.3 | 14.9 |
| 80°-90° | 88.9 | 1.5 |
| 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° | 5761.2 | 100.0 |
| 0°-180° | 5761.2 | 100.0 |



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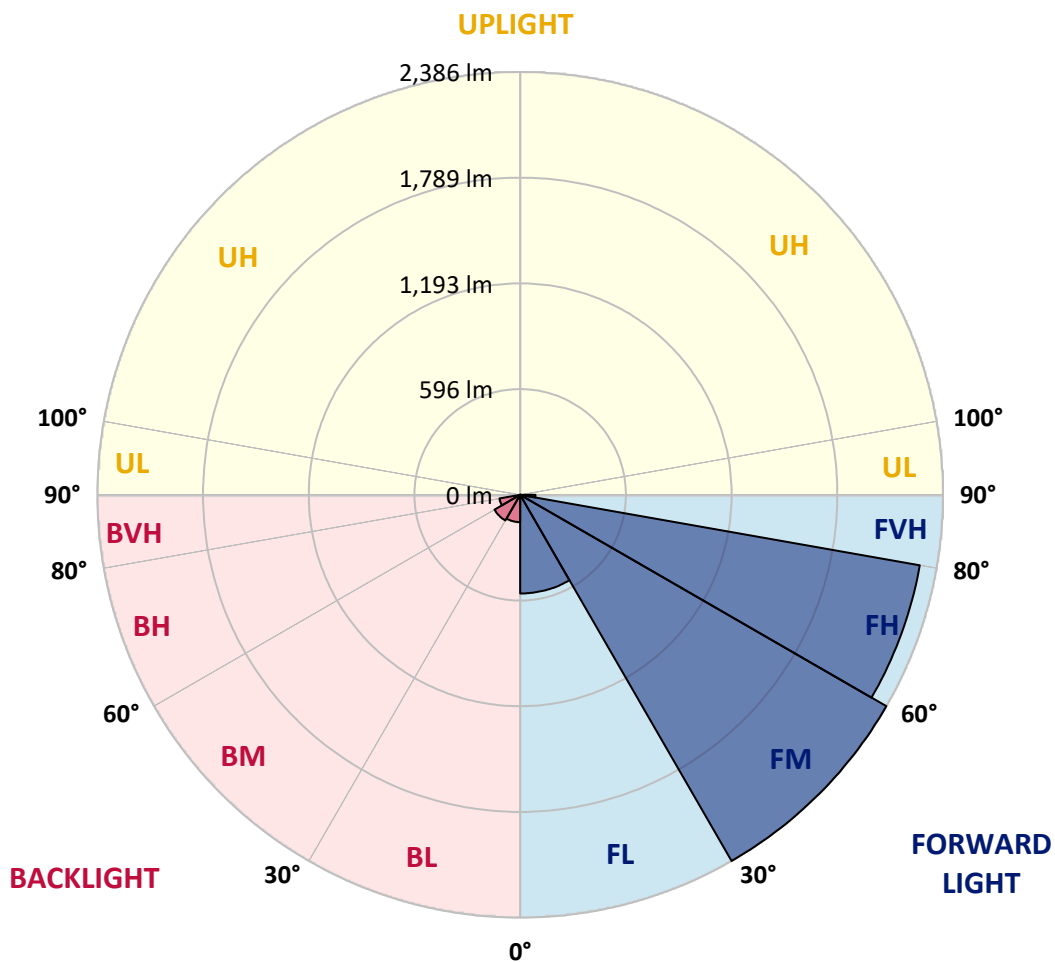
CATALOG NUMBER: XNV-AF-01-LED-U-SL3-1200-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 556.8 | 9.7 | | | |
| FM | (30°-60°) | 2385.8 | 41.4 | | | |
| FH | (60°-80°) | 2289.4 | 39.7 | | | G2/5000 |
| FVH | (80°-90°) | 86.3 | 1.5 | | | G1/100 |
| BL | (0°-30°) | 154.3 | 2.7 | B1/500 | | |
| BM | (30°-60°) | 167.2 | 2.9 | B0/220 | | |
| BH | (60°-80°) | 118.8 | 2.1 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 2.6 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 |
| 2.5° | 1646.7 | 1644.1 | 1633.2 | 1631.1 | 1618.9 | 1594.6 | 1566.3 | 1555.0 | 1532.0 | 1495.5 | 1455.0 |
| 5° | 1674.2 | 1675.4 | 1676.3 | 1671.5 | 1669.8 | 1649.8 | 1618.5 | 1605.0 | 1574.1 | 1514.2 | 1440.3 |
| 7.5° | 1571.6 | 1575.0 | 1585.9 | 1590.7 | 1611.6 | 1619.3 | 1612.9 | 1604.2 | 1579.8 | 1509.0 | 1405.1 |
| 10° | 1463.3 | 1469.9 | 1481.5 | 1489.4 | 1515.1 | 1536.0 | 1562.5 | 1564.6 | 1559.4 | 1491.6 | 1365.5 |
| 12.5° | 1370.3 | 1376.4 | 1389.5 | 1405.1 | 1431.2 | 1458.1 | 1497.7 | 1511.6 | 1529.0 | 1480.3 | 1337.3 |
| 15° | 1290.4 | 1292.1 | 1304.7 | 1324.2 | 1358.6 | 1395.5 | 1442.5 | 1462.9 | 1496.8 | 1475.9 | 1315.6 |
| 17.5° | 1220.4 | 1220.8 | 1229.1 | 1246.9 | 1288.6 | 1337.3 | 1392.0 | 1419.0 | 1462.0 | 1469.9 | 1296.5 |
| 20° | 1174.3 | 1173.8 | 1174.3 | 1183.9 | 1220.8 | 1278.6 | 1345.1 | 1373.4 | 1428.6 | 1462.5 | 1276.8 |
| 22.5° | 1158.7 | 1156.5 | 1146.5 | 1143.0 | 1166.5 | 1217.3 | 1296.9 | 1333.8 | 1398.6 | 1460.3 | 1262.5 |
| 25° | 1177.8 | 1176.5 | 1155.2 | 1135.2 | 1137.4 | 1169.1 | 1247.8 | 1293.0 | 1375.2 | 1468.1 | 1259.0 |
| 27.5° | 1239.5 | 1237.0 | 1204.3 | 1165.1 | 1140.4 | 1146.1 | 1211.3 | 1258.6 | 1356.4 | 1487.3 | 1263.9 |
| 30° | 1320.3 | 1320.7 | 1286.1 | 1238.7 | 1180.4 | 1148.3 | 1191.7 | 1236.4 | 1343.9 | 1515.9 | 1274.3 |
| 32.5° | 1410.3 | 1409.8 | 1385.1 | 1330.3 | 1256.0 | 1188.3 | 1200.4 | 1238.2 | 1345.6 | 1558.1 | 1294.2 |
| 35° | 1503.3 | 1498.5 | 1490.2 | 1442.1 | 1355.1 | 1258.2 | 1239.9 | 1267.7 | 1363.8 | 1613.7 | 1328.2 |
| 37.5° | 1610.6 | 1608.9 | 1617.2 | 1566.3 | 1477.7 | 1361.2 | 1309.5 | 1328.2 | 1409.8 | 1695.8 | 1382.9 |
| 40° | 1781.5 | 1772.0 | 1775.8 | 1706.7 | 1615.9 | 1499.9 | 1406.9 | 1411.6 | 1483.3 | 1804.5 | 1469.5 |
| 42.5° | 2107.0 | 2068.3 | 1995.8 | 1866.2 | 1768.0 | 1653.7 | 1534.2 | 1525.9 | 1587.2 | 1936.2 | 1583.3 |
| 45° | 2496.0 | 2451.6 | 2268.7 | 2042.2 | 1920.1 | 1818.8 | 1691.6 | 1669.4 | 1715.0 | 2093.1 | 1730.2 |
| 47.5° | 2820.6 | 2772.8 | 2530.3 | 2226.0 | 2074.9 | 1989.2 | 1865.8 | 1839.7 | 1867.9 | 2275.1 | 1906.7 |
| 50° | 2931.5 | 2905.0 | 2692.0 | 2379.1 | 2230.9 | 2180.4 | 2084.4 | 2040.9 | 2047.8 | 2471.7 | 2112.6 |
| 52.5° | 2880.6 | 2871.4 | 2728.9 | 2483.8 | 2375.2 | 2391.7 | 2323.8 | 2278.2 | 2270.4 | 2686.4 | 2340.4 |
| 55° | 2773.2 | 2768.9 | 2699.4 | 2542.0 | 2502.4 | 2585.1 | 2659.8 | 2620.3 | 2546.4 | 2914.5 | 2528.5 |
| 57.5° | 2619.9 | 2636.3 | 2686.4 | 2654.1 | 2659.0 | 2789.4 | 2971.9 | 2992.3 | 2881.9 | 3096.2 | 2668.1 |
| 60° | 2210.0 | 2254.3 | 2483.3 | 2774.5 | 2997.6 | 3129.2 | 3306.1 | 3344.3 | 3166.1 | 3220.5 | 2829.3 |
| 62.5° | 1633.7 | 1697.2 | 2023.5 | 2558.5 | 3183.9 | 3775.5 | 3750.6 | 3733.8 | 3437.3 | 3386.9 | 3122.7 |
| 65° | 959.6 | 1033.9 | 1309.9 | 1999.3 | 2902.7 | 4190.9 | 4580.8 | 4346.1 | 3850.7 | 3732.8 | 3589.8 |
| 67.5° | 478.0 | 478.5 | 603.2 | 1055.3 | 2145.2 | 3901.0 | 5792.5 | 5656.9 | 4729.4 | 4242.7 | 3774.2 |
| 70° | 367.6 | 377.7 | 446.3 | 613.3 | 1084.8 | 3038.4 | 6070.2 | 6627.0 | 5612.5 | 4220.1 | 3202.2 |
| 72.5° | 311.6 | 318.1 | 397.2 | 533.7 | 811.0 | 1668.0 | 5254.9 | 5857.7 | 5355.7 | 3565.6 | 2360.4 |
| 75° | 224.2 | 229.4 | 351.6 | 484.2 | 746.7 | 827.5 | 3604.7 | 4344.4 | 4018.5 | 2508.2 | 1299.0 |
| 77.5° | 55.6 | 55.2 | 122.5 | 392.9 | 668.0 | 689.3 | 2068.3 | 2785.9 | 2305.6 | 1026.9 | 333.8 |
| 80° | 24.8 | 23.9 | 27.8 | 82.6 | 621.4 | 650.6 | 909.6 | 1406.9 | 884.4 | 166.4 | 102.1 |
| 82.5° | 17.4 | 16.5 | 17.4 | 30.4 | 207.8 | 603.6 | 549.7 | 609.8 | 323.8 | 57.0 | 43.5 |
| 85° | 5.6 | 5.2 | 9.5 | 25.7 | 58.2 | 348.1 | 536.3 | 455.5 | 240.8 | 24.3 | 29.2 |
| 87.5° | 0.8 | 0.8 | 3.5 | 13.9 | 17.0 | 116.0 | 314.7 | 315.5 | 108.2 | 14.3 | 13.0 |
| 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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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 | 1456.8 |
| 2.5° | 1434.7 | 1409.0 | 1372.9 | 1336.9 | 1304.3 | 1270.8 | 1243.8 | 1231.2 | 1225.6 | 1217.8 | 1200.8 |
| 5° | 1401.6 | 1355.1 | 1276.0 | 1198.2 | 1125.7 | 1056.1 | 996.6 | 962.7 | 926.2 | 924.4 | 906.6 |
| 7.5° | 1348.6 | 1282.6 | 1157.8 | 1037.0 | 926.2 | 820.1 | 728.9 | 669.7 | 629.3 | 604.2 | 586.8 |
| 10° | 1289.5 | 1204.7 | 1039.6 | 869.6 | 718.8 | 577.1 | 459.8 | 383.3 | 336.9 | 313.3 | 299.9 |
| 12.5° | 1242.6 | 1136.1 | 923.1 | 709.3 | 520.3 | 357.7 | 248.6 | 192.9 | 168.2 | 158.7 | 154.3 |
| 15° | 1202.2 | 1073.1 | 814.1 | 565.9 | 347.3 | 205.6 | 143.8 | 125.6 | 121.7 | 121.7 | 121.2 |
| 17.5° | 1161.3 | 1012.2 | 708.0 | 425.0 | 218.6 | 134.7 | 113.4 | 110.8 | 111.3 | 112.5 | 112.5 |
| 20° | 1122.6 | 954.4 | 605.9 | 302.9 | 143.4 | 107.8 | 103.0 | 102.1 | 103.4 | 105.2 | 104.8 |
| 22.5° | 1091.3 | 903.6 | 510.2 | 208.2 | 110.4 | 97.8 | 94.7 | 93.4 | 94.3 | 95.6 | 95.1 |
| 25° | 1069.2 | 860.1 | 422.5 | 145.2 | 96.1 | 89.1 | 85.6 | 83.9 | 83.0 | 83.9 | 83.5 |
| 27.5° | 1055.7 | 823.6 | 339.8 | 109.0 | 86.0 | 80.4 | 76.1 | 72.6 | 70.4 | 70.4 | 69.6 |
| 30° | 1047.0 | 789.2 | 266.4 | 90.4 | 77.7 | 71.7 | 65.7 | 60.9 | 57.4 | 56.5 | 56.1 |
| 32.5° | 1046.6 | 759.7 | 199.1 | 80.0 | 70.0 | 63.0 | 55.6 | 49.5 | 45.6 | 44.8 | 44.3 |
| 35° | 1057.4 | 735.8 | 146.5 | 72.1 | 63.0 | 54.7 | 46.5 | 40.0 | 36.5 | 36.5 | 36.1 |
| 37.5° | 1085.7 | 721.9 | 110.8 | 66.1 | 57.4 | 47.8 | 39.1 | 33.0 | 30.0 | 30.9 | 30.9 |
| 40° | 1138.2 | 719.2 | 90.4 | 61.3 | 52.6 | 41.7 | 31.7 | 26.9 | 25.7 | 26.9 | 26.9 |
| 42.5° | 1218.6 | 733.1 | 80.4 | 57.8 | 48.3 | 35.6 | 26.5 | 23.0 | 22.6 | 23.9 | 23.9 |
| 45° | 1323.4 | 760.6 | 74.8 | 54.7 | 43.5 | 29.6 | 22.2 | 19.9 | 19.5 | 21.3 | 21.3 |
| 47.5° | 1450.3 | 797.5 | 69.6 | 51.2 | 38.7 | 24.3 | 18.7 | 17.0 | 17.0 | 18.7 | 19.1 |
| 50° | 1600.7 | 847.5 | 64.3 | 47.8 | 34.8 | 20.5 | 15.7 | 14.3 | 14.7 | 16.5 | 17.0 |
| 52.5° | 1773.7 | 908.8 | 59.5 | 44.8 | 30.4 | 16.5 | 13.0 | 12.2 | 12.6 | 14.3 | 14.7 |
| 55° | 1922.7 | 962.2 | 53.9 | 41.7 | 24.8 | 13.5 | 10.8 | 10.4 | 10.8 | 13.0 | 13.0 |
| 57.5° | 2052.7 | 1013.5 | 48.7 | 36.9 | 19.5 | 10.8 | 8.7 | 8.7 | 9.5 | 11.8 | 12.2 |
| 60° | 2225.2 | 1094.4 | 44.3 | 31.3 | 14.7 | 8.3 | 7.0 | 7.4 | 8.7 | 10.4 | 10.8 |
| 62.5° | 2530.8 | 1231.7 | 38.7 | 26.1 | 10.8 | 6.5 | 5.6 | 6.0 | 7.8 | 10.0 | 10.4 |
| 65° | 2913.2 | 1361.6 | 32.1 | 21.7 | 8.3 | 4.8 | 4.3 | 5.6 | 7.8 | 10.0 | 10.4 |
| 67.5° | 2874.1 | 1184.3 | 25.2 | 17.4 | 6.0 | 3.9 | 3.5 | 5.2 | 7.4 | 10.0 | 10.4 |
| 70° | 2330.8 | 830.1 | 18.7 | 11.8 | 4.8 | 3.5 | 3.5 | 5.2 | 7.4 | 9.5 | 10.0 |
| 72.5° | 1616.8 | 462.0 | 14.3 | 7.8 | 4.3 | 3.5 | 3.1 | 4.8 | 7.0 | 9.5 | 10.0 |
| 75° | 769.3 | 141.7 | 11.3 | 5.6 | 3.9 | 3.1 | 2.6 | 4.8 | 7.0 | 9.5 | 10.0 |
| 77.5° | 147.8 | 36.1 | 9.1 | 4.8 | 3.5 | 3.1 | 2.6 | 4.3 | 7.0 | 9.1 | 9.5 |
| 80° | 50.0 | 16.1 | 7.4 | 4.3 | 3.5 | 3.1 | 2.6 | 4.3 | 6.5 | 8.7 | 9.1 |
| 82.5° | 27.4 | 9.1 | 6.5 | 3.9 | 3.5 | 2.6 | 2.1 | 3.9 | 6.0 | 8.7 | 9.1 |
| 85° | 21.3 | 6.5 | 5.2 | 3.9 | 3.5 | 2.6 | 2.1 | 3.9 | 6.0 | 8.3 | 8.7 |
| 87.5° | 10.8 | 4.8 | 4.3 | 3.9 | 3.5 | 2.6 | 2.1 | 3.5 | 5.6 | 7.8 | 8.7 |
| 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)