

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: P197259

Luminaire Tested: **NVN-AF-03-LED-U-T3-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197259
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-03-LED-U-T3-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9741 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

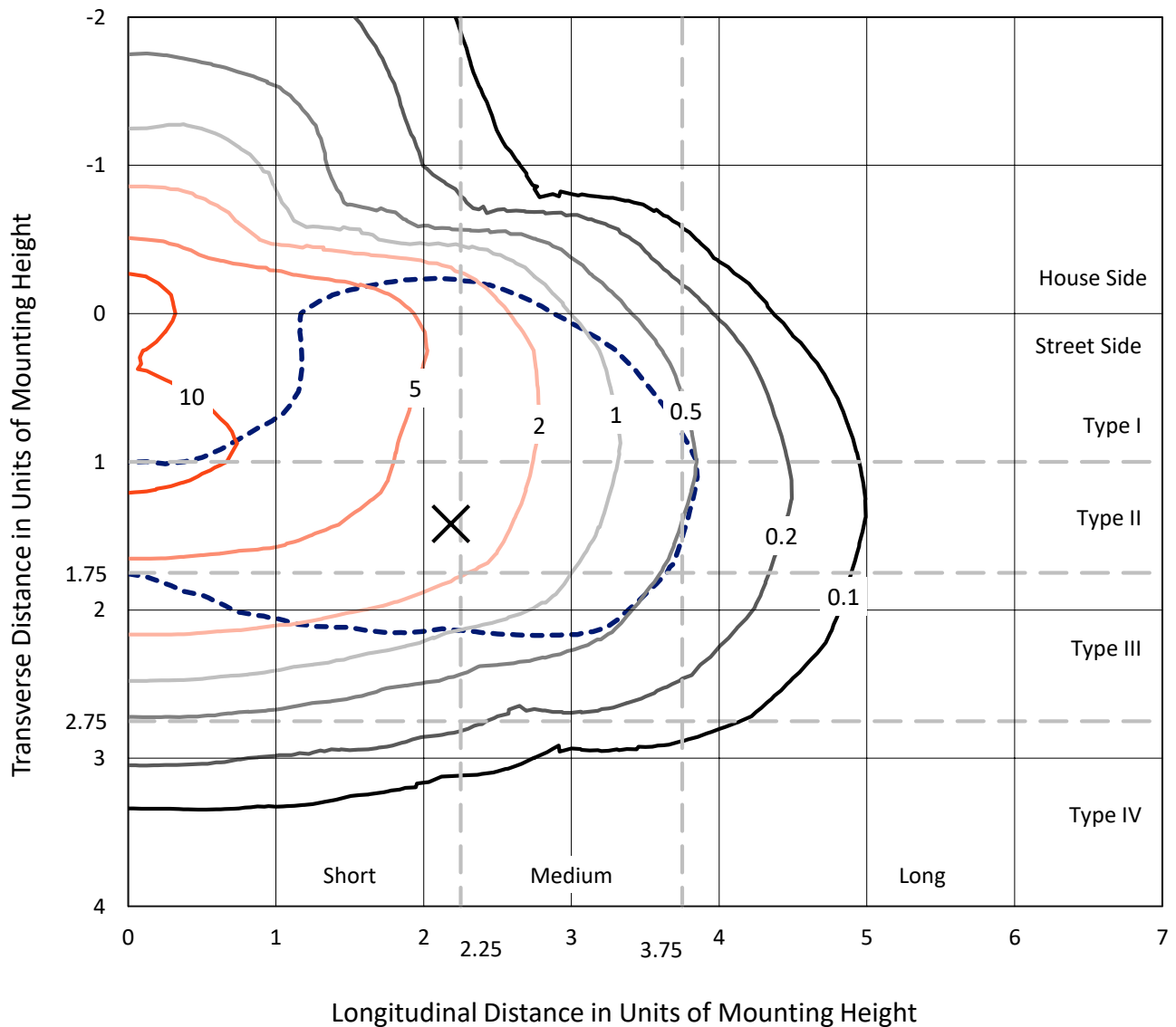
Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

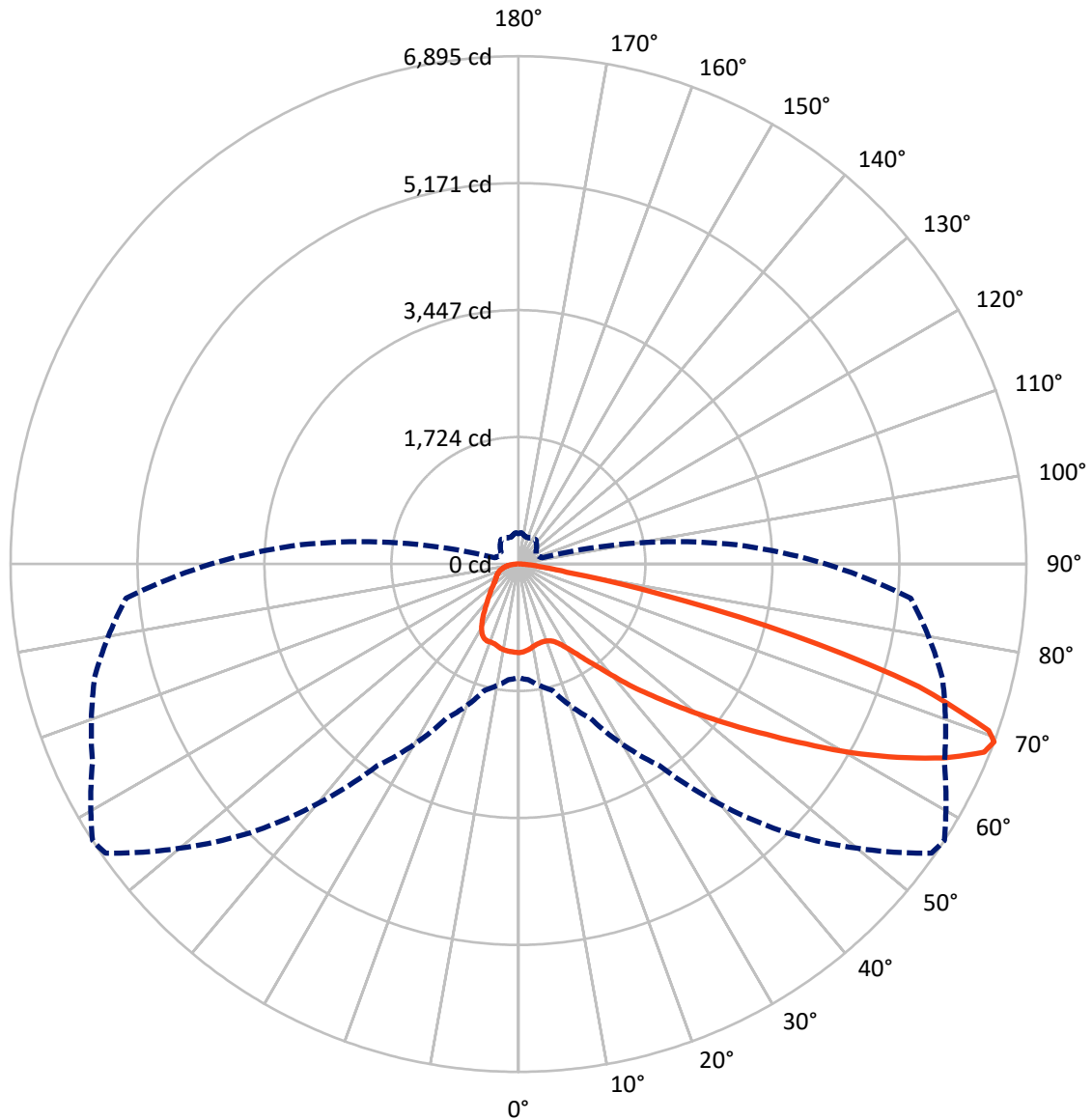
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.3 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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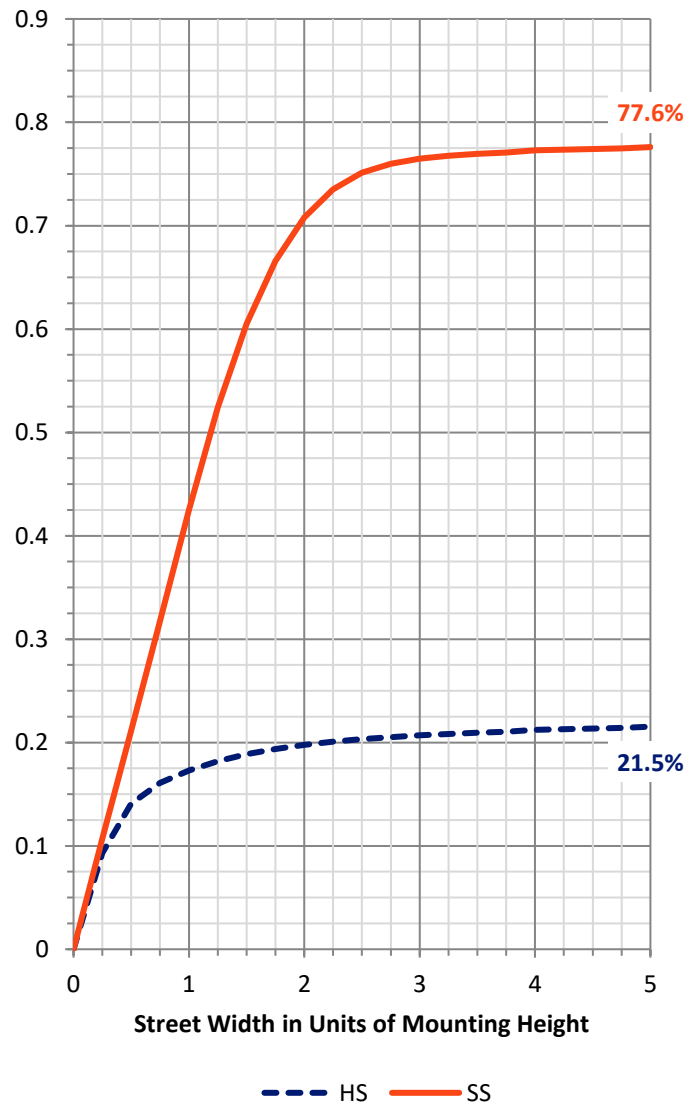
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2149.5 | 0.0 | 2149.5 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 7591.5 | 0.0 | 7591.5 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 9741.0 | 0.0 | 9741.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 112.7 | 1.2 |
| 10°-20° | 320.4 | 3.3 |
| 20°-30° | 532.9 | 5.5 |
| 30°-40° | 870.3 | 8.9 |
| 40°-50° | 1468.8 | 15.1 |
| 50°-60° | 2284.9 | 23.5 |
| 60°-70° | 2721.8 | 27.9 |
| 70°-80° | 1268.0 | 13.0 |
| 80°-90° | 161.3 | 1.7 |
| 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° | 9741.0 | 100.0 |
| 0°-180° | 9741.0 | 100.0 |



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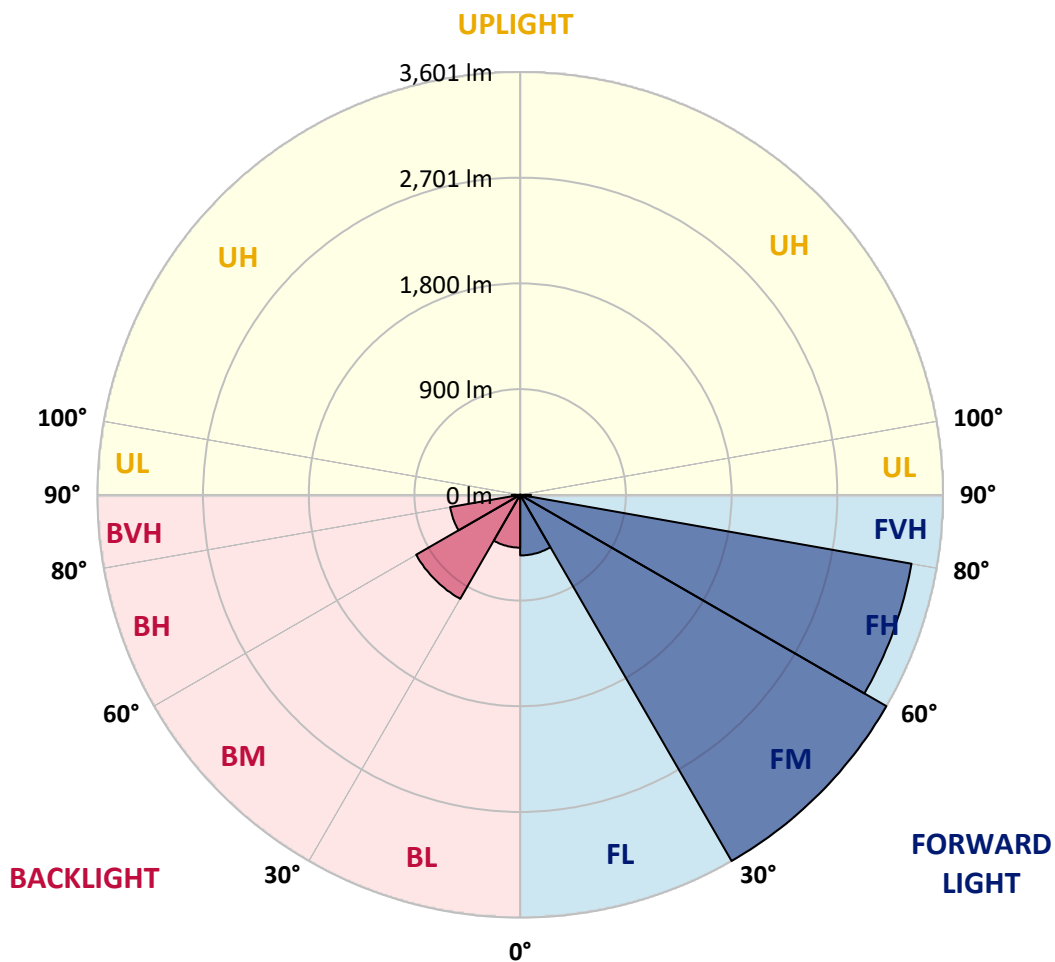
CATALOG NUMBER: NVN-AF-03-LED-U-T3-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 515.9 | 5.3 | | | |
| FM | (30°-60°) | 3600.9 | 37.0 | | | |
| FH | (60°-80°) | 3384.0 | 34.7 | | | G2/5000 |
| FVH | (80°-90°) | 90.7 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 450.1 | 4.6 | B1/500 | | |
| BM | (30°-60°) | 1023.0 | 10.5 | B2/2500 | | |
| BH | (60°-80°) | 605.7 | 6.2 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 70.6 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 |
| 2.5° | 1196.7 | 1196.7 | 1199.9 | 1199.9 | 1199.9 | 1198.6 | 1194.9 | 1196.1 | 1193.6 | 1191.7 | 1188.6 |
| 5° | 1172.4 | 1173.7 | 1177.4 | 1178.7 | 1180.5 | 1181.1 | 1181.1 | 1180.5 | 1181.1 | 1181.1 | 1179.3 |
| 7.5° | 1138.7 | 1140.0 | 1144.4 | 1146.8 | 1152.5 | 1157.4 | 1159.9 | 1159.9 | 1163.1 | 1165.6 | 1166.2 |
| 10° | 1118.2 | 1118.2 | 1120.7 | 1120.7 | 1125.0 | 1127.5 | 1135.6 | 1135.0 | 1143.7 | 1151.8 | 1155.6 |
| 12.5° | 1115.7 | 1115.7 | 1114.4 | 1110.1 | 1107.6 | 1106.9 | 1115.0 | 1116.3 | 1129.4 | 1143.7 | 1150.6 |
| 15° | 1123.8 | 1123.8 | 1120.0 | 1111.3 | 1101.9 | 1097.6 | 1105.7 | 1108.2 | 1122.5 | 1139.4 | 1150.0 |
| 17.5° | 1150.0 | 1149.3 | 1141.2 | 1123.8 | 1107.6 | 1100.7 | 1103.2 | 1105.7 | 1118.8 | 1138.1 | 1151.2 |
| 20° | 1208.0 | 1208.0 | 1190.5 | 1158.7 | 1130.6 | 1114.4 | 1110.7 | 1112.5 | 1121.9 | 1140.0 | 1156.8 |
| 22.5° | 1309.6 | 1311.5 | 1280.3 | 1227.9 | 1179.9 | 1145.6 | 1130.6 | 1132.5 | 1136.9 | 1154.3 | 1173.0 |
| 25° | 1459.3 | 1454.3 | 1410.0 | 1335.8 | 1261.0 | 1202.3 | 1171.8 | 1173.7 | 1173.7 | 1189.9 | 1209.2 |
| 27.5° | 1617.7 | 1618.9 | 1555.3 | 1475.5 | 1377.0 | 1289.7 | 1241.0 | 1240.4 | 1239.8 | 1255.4 | 1275.9 |
| 30° | 1796.7 | 1797.3 | 1723.7 | 1631.4 | 1518.5 | 1406.9 | 1333.9 | 1333.3 | 1327.7 | 1347.0 | 1373.8 |
| 32.5° | 1992.5 | 1991.9 | 1906.4 | 1802.3 | 1676.9 | 1550.3 | 1455.5 | 1454.9 | 1450.6 | 1476.7 | 1509.2 |
| 35° | 2209.5 | 2209.5 | 2124.7 | 1996.2 | 1860.9 | 1720.0 | 1610.2 | 1609.6 | 1612.1 | 1647.6 | 1678.2 |
| 37.5° | 2470.8 | 2476.4 | 2374.1 | 2218.2 | 2070.4 | 1920.1 | 1792.3 | 1788.6 | 1769.8 | 1829.7 | 1880.2 |
| 40° | 2743.3 | 2758.9 | 2652.9 | 2470.8 | 2311.2 | 2155.9 | 2014.9 | 2012.4 | 1996.2 | 2059.8 | 2141.5 |
| 42.5° | 3038.3 | 3073.8 | 2956.0 | 2770.1 | 2596.1 | 2428.4 | 2286.8 | 2280.0 | 2217.6 | 2316.8 | 2444.6 |
| 45° | 3424.9 | 3448.0 | 3277.1 | 3108.8 | 2944.8 | 2753.3 | 2584.9 | 2548.1 | 2485.8 | 2613.0 | 2778.9 |
| 47.5° | 3688.1 | 3676.9 | 3570.3 | 3457.4 | 3352.0 | 3168.6 | 2909.8 | 2863.1 | 2787.0 | 2955.4 | 3138.1 |
| 50° | 3851.5 | 3859.6 | 3799.7 | 3794.1 | 3788.5 | 3660.7 | 3276.5 | 3220.4 | 3132.5 | 3332.0 | 3545.3 |
| 52.5° | 3959.4 | 3922.6 | 3933.2 | 4060.4 | 4214.5 | 4153.3 | 3691.2 | 3628.9 | 3538.4 | 3738.0 | 3978.7 |
| 55° | 3914.5 | 3865.8 | 3963.8 | 4214.5 | 4576.8 | 4590.5 | 4146.5 | 4082.2 | 4004.9 | 4169.6 | 4500.1 |
| 57.5° | 3728.7 | 3753.0 | 3907.6 | 4256.2 | 4824.4 | 4982.1 | 4669.7 | 4604.2 | 4452.1 | 4619.2 | 4995.2 |
| 60° | 3467.4 | 3516.6 | 3753.0 | 4190.1 | 4997.7 | 5287.1 | 5244.1 | 5200.4 | 4938.5 | 5057.0 | 5515.3 |
| 62.5° | 3186.7 | 3235.4 | 3526.0 | 4077.3 | 4919.8 | 5557.1 | 5807.8 | 5781.0 | 5475.4 | 5478.5 | 5845.2 |
| 65° | 2772.0 | 2792.0 | 3088.8 | 3769.2 | 4703.4 | 5801.0 | 6372.2 | 6348.5 | 5988.7 | 5838.4 | 5937.5 |
| 67.5° | 2093.5 | 2118.5 | 2362.3 | 2975.3 | 4044.8 | 5668.7 | 6823.1 | 6819.3 | 6297.4 | 5971.8 | 5718.0 |
| 69° | 1546.0 | 1576.5 | 1775.5 | 2309.9 | 3344.5 | 5164.9 | 6844.3 | 6894.8 | 6380.9 | 5958.1 | 5347.0 |
| 70° | 1131.3 | 1166.2 | 1350.1 | 1833.5 | 2785.7 | 4608.6 | 6662.8 | 6771.3 | 6349.1 | 5871.4 | 5057.6 |
| 72.5° | 480.8 | 492.7 | 583.1 | 827.5 | 1413.1 | 2778.9 | 5457.3 | 5685.6 | 5734.2 | 5260.9 | 3951.3 |
| 75° | 301.2 | 305.0 | 340.5 | 424.7 | 628.6 | 1149.3 | 3534.1 | 3845.3 | 4281.2 | 4081.6 | 2645.4 |
| 77.5° | 227.0 | 230.1 | 250.7 | 292.5 | 390.4 | 429.1 | 1639.5 | 1955.1 | 2452.1 | 2401.0 | 1316.5 |
| 80° | 174.0 | 175.9 | 189.6 | 212.7 | 275.0 | 268.8 | 532.0 | 668.5 | 1023.4 | 903.0 | 465.8 |
| 82.5° | 136.6 | 137.2 | 149.0 | 153.4 | 192.1 | 180.9 | 266.9 | 297.5 | 413.5 | 343.6 | 227.6 |
| 85° | 121.0 | 122.9 | 134.7 | 112.3 | 122.9 | 109.1 | 146.6 | 159.0 | 219.5 | 207.0 | 86.1 |
| 87.5° | 61.7 | 64.9 | 112.9 | 96.0 | 61.7 | 51.8 | 64.2 | 69.2 | 89.2 | 96.7 | 41.8 |
| 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° | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 | 1203.6 |
| 2.5° | 1189.3 | 1189.9 | 1191.7 | 1194.9 | 1199.9 | 1206.1 | 1213.6 | 1221.1 | 1225.4 | 1228.5 | 1227.3 |
| 5° | 1179.3 | 1179.9 | 1183.6 | 1189.3 | 1195.5 | 1204.8 | 1217.3 | 1226.7 | 1233.5 | 1237.9 | 1237.3 |
| 7.5° | 1166.8 | 1168.7 | 1176.2 | 1182.4 | 1191.1 | 1198.6 | 1208.6 | 1217.3 | 1224.2 | 1228.5 | 1227.9 |
| 10° | 1157.4 | 1159.3 | 1168.7 | 1176.8 | 1184.3 | 1185.5 | 1183.6 | 1181.1 | 1180.5 | 1183.6 | 1182.4 |
| 12.5° | 1153.1 | 1156.8 | 1165.6 | 1171.2 | 1168.0 | 1156.2 | 1142.5 | 1136.9 | 1135.0 | 1141.2 | 1141.9 |
| 15° | 1154.3 | 1157.4 | 1164.9 | 1161.2 | 1144.4 | 1124.4 | 1116.9 | 1121.3 | 1125.0 | 1128.8 | 1129.4 |
| 17.5° | 1157.4 | 1159.3 | 1161.2 | 1147.5 | 1123.8 | 1110.7 | 1108.2 | 1103.8 | 1092.6 | 1086.4 | 1085.7 |
| 20° | 1163.1 | 1165.6 | 1162.4 | 1140.6 | 1119.4 | 1101.9 | 1072.0 | 1045.2 | 1019.6 | 1005.9 | 1000.3 |
| 22.5° | 1182.4 | 1184.3 | 1174.9 | 1153.7 | 1121.3 | 1064.5 | 1004.0 | 957.9 | 918.6 | 897.4 | 889.3 |
| 25° | 1220.4 | 1223.6 | 1210.5 | 1183.6 | 1098.8 | 999.7 | 914.2 | 851.9 | 802.6 | 777.0 | 770.2 |
| 27.5° | 1287.2 | 1290.3 | 1275.9 | 1206.1 | 1046.4 | 913.0 | 809.5 | 747.7 | 705.3 | 683.5 | 680.4 |
| 30° | 1386.9 | 1391.3 | 1378.2 | 1205.5 | 966.6 | 802.6 | 707.2 | 671.0 | 646.7 | 631.7 | 631.1 |
| 32.5° | 1525.4 | 1541.6 | 1488.0 | 1184.3 | 868.1 | 691.0 | 629.9 | 617.4 | 605.5 | 595.6 | 595.6 |
| 35° | 1701.2 | 1739.3 | 1596.5 | 1140.0 | 759.6 | 614.9 | 586.8 | 575.0 | 560.0 | 549.4 | 548.2 |
| 37.5° | 1911.4 | 1970.7 | 1673.8 | 1061.4 | 666.0 | 578.1 | 560.6 | 541.3 | 517.6 | 497.0 | 492.0 |
| 40° | 2200.1 | 2213.9 | 1711.8 | 933.6 | 596.2 | 558.1 | 536.3 | 512.0 | 482.1 | 459.0 | 456.5 |
| 42.5° | 2490.1 | 2445.2 | 1704.4 | 796.4 | 556.3 | 540.1 | 511.4 | 484.6 | 457.7 | 438.4 | 438.4 |
| 45° | 2820.0 | 2647.3 | 1647.6 | 658.5 | 520.1 | 519.5 | 488.3 | 462.7 | 442.1 | 427.8 | 424.7 |
| 47.5° | 3135.6 | 2828.8 | 1549.7 | 556.9 | 482.7 | 498.9 | 473.3 | 452.8 | 434.0 | 420.3 | 417.8 |
| 50° | 3518.5 | 3038.9 | 1445.6 | 485.8 | 446.5 | 480.8 | 467.1 | 456.5 | 438.4 | 414.7 | 412.2 |
| 52.5° | 3898.9 | 3284.6 | 1365.1 | 432.2 | 414.7 | 466.5 | 470.8 | 472.1 | 455.2 | 409.1 | 406.0 |
| 55° | 4307.4 | 3547.2 | 1280.3 | 390.4 | 388.5 | 459.6 | 479.6 | 478.3 | 470.2 | 410.3 | 405.4 |
| 57.5° | 4695.9 | 3811.0 | 1153.7 | 361.1 | 367.9 | 452.8 | 481.4 | 461.5 | 447.1 | 416.6 | 408.5 |
| 60° | 5017.7 | 4029.2 | 967.9 | 340.5 | 350.5 | 439.0 | 469.0 | 439.0 | 414.7 | 415.3 | 407.9 |
| 62.5° | 5174.2 | 4090.4 | 740.2 | 316.8 | 336.1 | 416.6 | 450.9 | 422.2 | 399.7 | 417.8 | 413.5 |
| 65° | 5055.1 | 3916.4 | 527.6 | 295.0 | 318.7 | 390.4 | 440.3 | 407.9 | 392.3 | 430.3 | 425.3 |
| 67.5° | 4627.3 | 3442.4 | 382.9 | 275.6 | 301.8 | 363.6 | 420.3 | 394.8 | 384.8 | 439.7 | 428.4 |
| 69° | 4172.7 | 2972.2 | 331.8 | 264.4 | 290.0 | 349.2 | 407.2 | 387.9 | 379.2 | 426.6 | 410.3 |
| 70° | 3794.8 | 2609.9 | 306.2 | 257.6 | 280.0 | 341.1 | 397.2 | 383.5 | 373.6 | 411.0 | 391.6 |
| 72.5° | 2720.9 | 1686.9 | 257.6 | 237.0 | 253.8 | 323.0 | 375.4 | 367.3 | 352.3 | 371.1 | 358.6 |
| 75° | 1643.9 | 880.6 | 218.9 | 215.8 | 226.4 | 298.1 | 349.9 | 339.9 | 324.9 | 326.8 | 320.5 |
| 77.5° | 755.2 | 406.6 | 183.3 | 190.8 | 197.7 | 266.9 | 318.7 | 307.4 | 293.7 | 288.7 | 289.4 |
| 80° | 331.1 | 237.6 | 153.4 | 162.8 | 166.5 | 240.1 | 285.0 | 272.5 | 257.6 | 284.4 | 263.8 |
| 82.5° | 179.0 | 137.8 | 119.7 | 126.0 | 136.6 | 208.9 | 247.6 | 231.4 | 217.0 | 252.6 | 203.9 |
| 85° | 72.3 | 70.5 | 81.1 | 87.3 | 94.8 | 150.3 | 207.0 | 190.2 | 172.7 | 154.7 | 150.9 |
| 87.5° | 31.2 | 33.7 | 39.9 | 42.4 | 50.5 | 93.5 | 139.1 | 121.6 | 122.2 | 104.8 | 102.9 |
| 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)