

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: P197257

Luminaire Tested: **NVN-AF-01-LED-U-T3-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197257
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-01-LED-U-T3-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3285 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

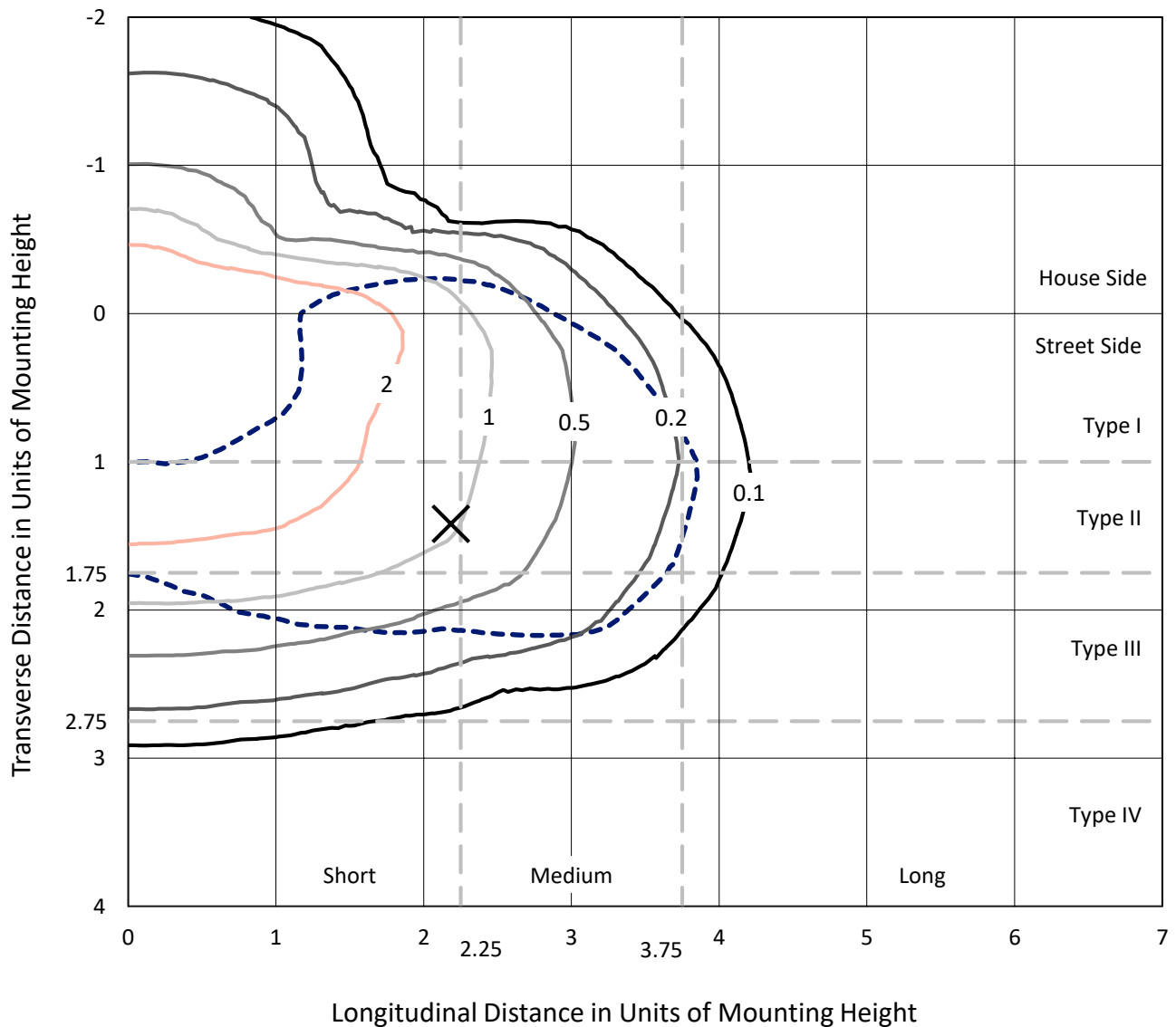
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

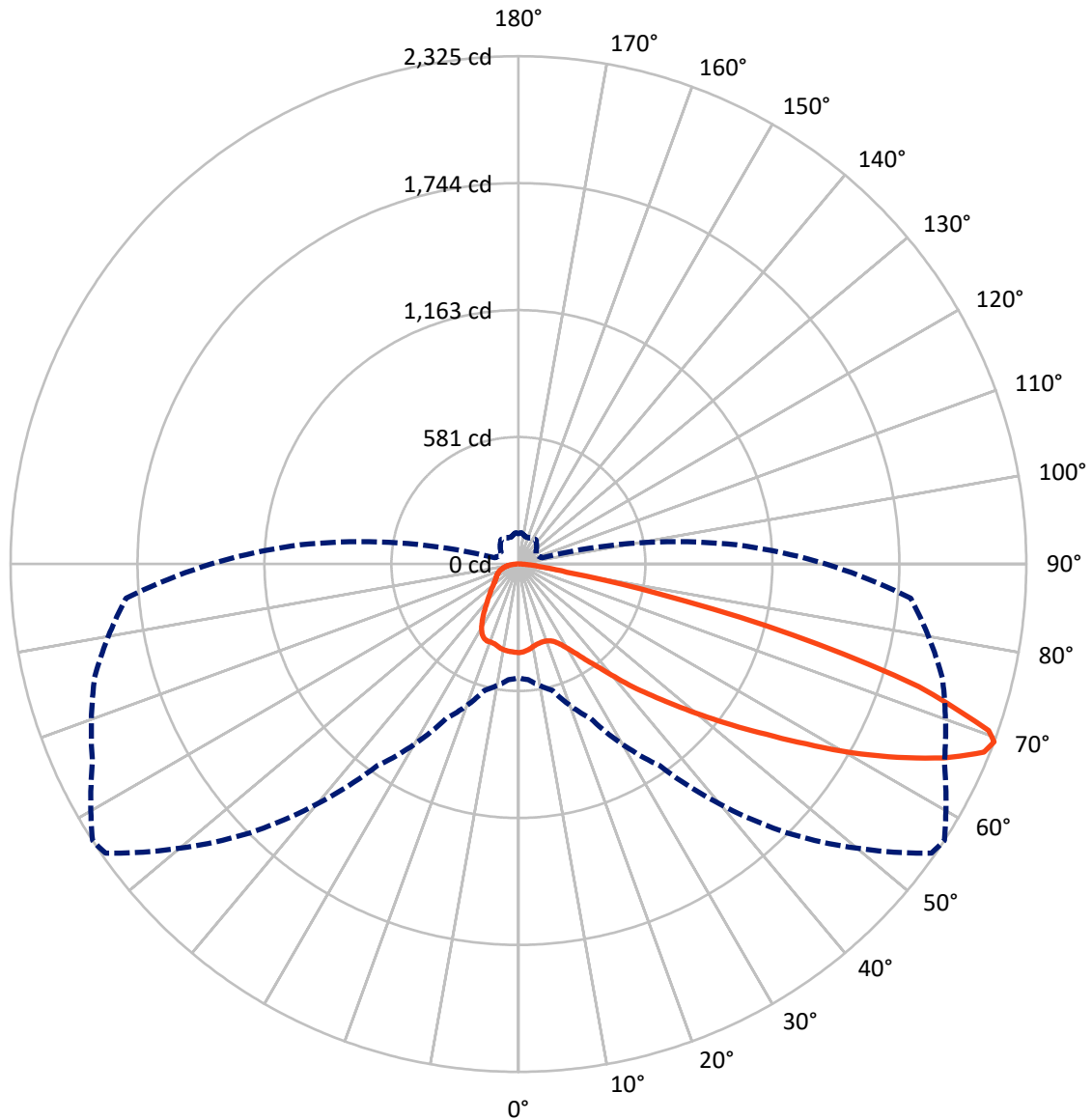
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.2 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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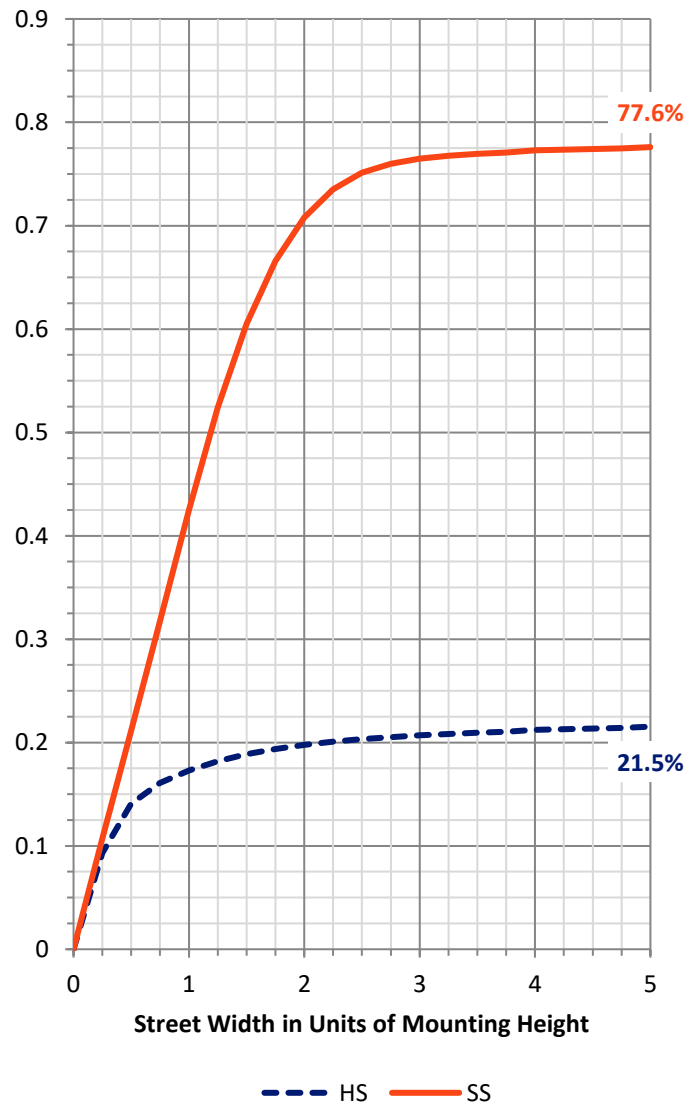
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 724.9 | 0.0 | 724.9 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 2560.1 | 0.0 | 2560.1 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 3285.0 | 0.0 | 3285.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 38.0 | 1.2 |
| 10°-20° | 108.0 | 3.3 |
| 20°-30° | 179.7 | 5.5 |
| 30°-40° | 293.5 | 8.9 |
| 40°-50° | 495.3 | 15.1 |
| 50°-60° | 770.5 | 23.5 |
| 60°-70° | 917.9 | 27.9 |
| 70°-80° | 427.6 | 13.0 |
| 80°-90° | 54.4 | 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° | 3285.0 | 100.0 |
| 0°-180° | 3285.0 | 100.0 |



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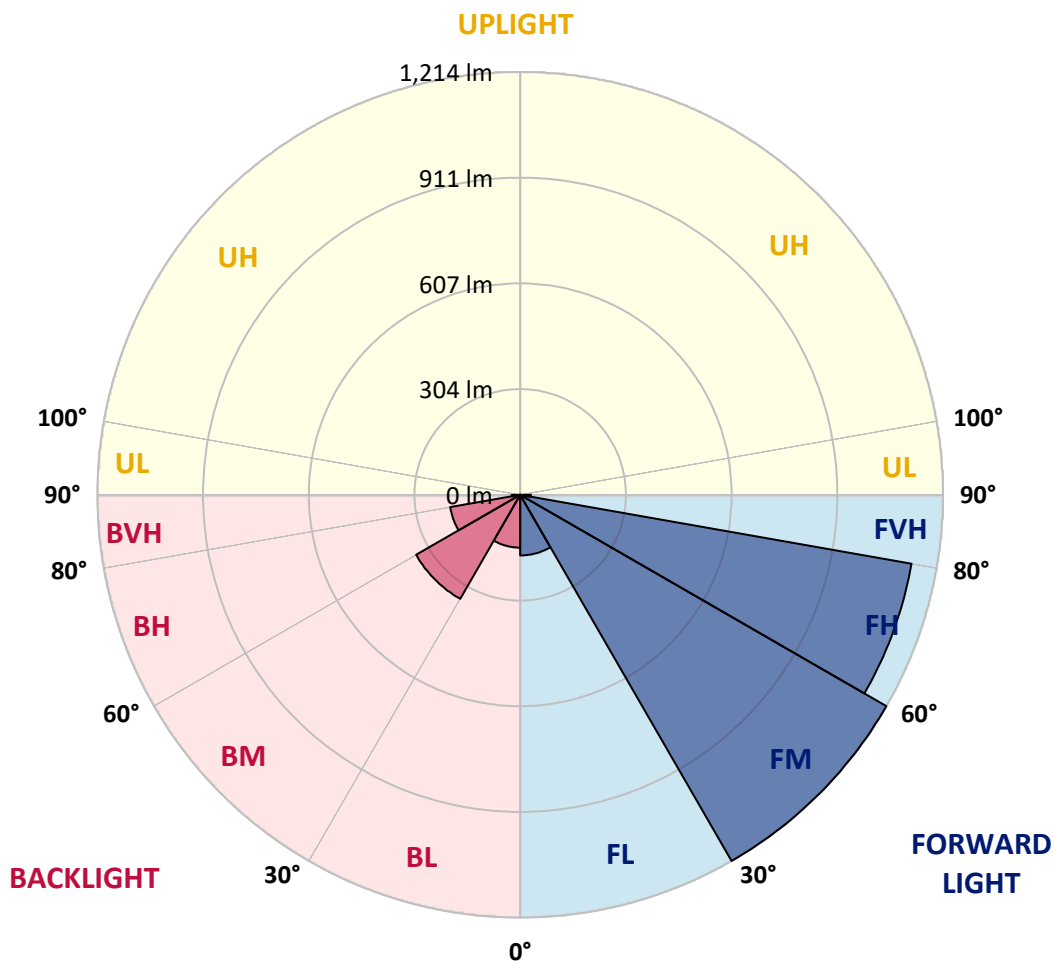
CATALOG NUMBER: NVN-AF-01-LED-U-T3-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 174.0 | 5.3 | | | |
| FM | (30°-60°) | 1214.4 | 37.0 | | | |
| FH | (60°-80°) | 1141.2 | 34.7 | | | G1/1800 |
| FVH | (80°-90°) | 30.6 | 0.9 | | | G1/100 |
| BL | (0°-30°) | 151.8 | 4.6 | B1/500 | | |
| BM | (30°-60°) | 345.0 | 10.5 | B1/1000 | | |
| BH | (60°-80°) | 204.3 | 6.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 23.8 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 |
| 2.5° | 403.6 | 403.6 | 404.6 | 404.6 | 404.6 | 404.2 | 402.9 | 403.4 | 402.5 | 401.9 | 400.8 |
| 5° | 395.4 | 395.8 | 397.1 | 397.5 | 398.1 | 398.3 | 398.3 | 398.1 | 398.3 | 398.3 | 397.7 |
| 7.5° | 384.0 | 384.4 | 385.9 | 386.8 | 388.6 | 390.3 | 391.2 | 391.2 | 392.2 | 393.1 | 393.3 |
| 10° | 377.1 | 377.1 | 377.9 | 377.9 | 379.4 | 380.2 | 383.0 | 382.8 | 385.7 | 388.4 | 389.7 |
| 12.5° | 376.2 | 376.2 | 375.8 | 374.3 | 373.5 | 373.3 | 376.0 | 376.5 | 380.9 | 385.7 | 388.0 |
| 15° | 379.0 | 379.0 | 377.7 | 374.8 | 371.6 | 370.1 | 372.9 | 373.7 | 378.6 | 384.2 | 387.8 |
| 17.5° | 387.8 | 387.6 | 384.9 | 379.0 | 373.5 | 371.2 | 372.0 | 372.9 | 377.3 | 383.8 | 388.2 |
| 20° | 407.4 | 407.4 | 401.5 | 390.8 | 381.3 | 375.8 | 374.6 | 375.2 | 378.3 | 384.4 | 390.1 |
| 22.5° | 441.6 | 442.3 | 431.8 | 414.1 | 397.9 | 386.3 | 381.3 | 381.9 | 383.4 | 389.3 | 395.6 |
| 25° | 492.1 | 490.4 | 475.5 | 450.5 | 425.2 | 405.5 | 395.2 | 395.8 | 395.8 | 401.3 | 407.8 |
| 27.5° | 545.5 | 546.0 | 524.5 | 497.6 | 464.4 | 434.9 | 418.5 | 418.3 | 418.1 | 423.3 | 430.3 |
| 30° | 605.9 | 606.1 | 581.3 | 550.2 | 512.1 | 474.5 | 449.8 | 449.6 | 447.7 | 454.3 | 463.3 |
| 32.5° | 671.9 | 671.7 | 642.9 | 607.8 | 565.5 | 522.8 | 490.9 | 490.6 | 489.2 | 498.0 | 508.9 |
| 35° | 745.1 | 745.1 | 716.5 | 673.2 | 627.6 | 580.0 | 543.0 | 542.8 | 543.6 | 555.6 | 565.9 |
| 37.5° | 833.2 | 835.1 | 800.6 | 748.1 | 698.2 | 647.5 | 604.4 | 603.2 | 596.9 | 617.0 | 634.1 |
| 40° | 925.1 | 930.4 | 894.6 | 833.2 | 779.4 | 727.0 | 679.5 | 678.7 | 673.2 | 694.6 | 722.2 |
| 42.5° | 1024.6 | 1036.6 | 996.9 | 934.2 | 875.5 | 818.9 | 771.2 | 768.9 | 747.9 | 781.3 | 824.4 |
| 45° | 1155.0 | 1162.8 | 1105.2 | 1048.4 | 993.1 | 928.5 | 871.7 | 859.3 | 838.3 | 881.2 | 937.1 |
| 47.5° | 1243.8 | 1240.0 | 1204.0 | 1165.9 | 1130.4 | 1068.6 | 981.3 | 965.5 | 939.9 | 996.6 | 1058.3 |
| 50° | 1298.9 | 1301.6 | 1281.4 | 1279.5 | 1277.6 | 1234.5 | 1105.0 | 1086.0 | 1056.4 | 1123.7 | 1195.6 |
| 52.5° | 1335.2 | 1322.8 | 1326.4 | 1369.3 | 1421.3 | 1400.6 | 1244.8 | 1223.8 | 1193.3 | 1260.6 | 1341.8 |
| 55° | 1320.1 | 1303.7 | 1336.7 | 1421.3 | 1543.4 | 1548.1 | 1398.3 | 1376.7 | 1350.6 | 1406.1 | 1517.6 |
| 57.5° | 1257.4 | 1265.6 | 1317.8 | 1435.3 | 1626.9 | 1680.1 | 1574.8 | 1552.7 | 1501.4 | 1557.7 | 1684.6 |
| 60° | 1169.3 | 1185.9 | 1265.6 | 1413.1 | 1685.4 | 1783.0 | 1768.5 | 1753.8 | 1665.4 | 1705.4 | 1860.0 |
| 62.5° | 1074.7 | 1091.1 | 1189.1 | 1375.0 | 1659.1 | 1874.1 | 1958.6 | 1949.6 | 1846.5 | 1847.6 | 1971.2 |
| 65° | 934.8 | 941.5 | 1041.7 | 1271.1 | 1586.1 | 1956.3 | 2148.9 | 2140.9 | 2019.6 | 1968.9 | 2002.3 |
| 67.5° | 706.0 | 714.4 | 796.6 | 1003.4 | 1364.1 | 1911.7 | 2301.0 | 2299.7 | 2123.7 | 2013.9 | 1928.3 |
| 69° | 521.4 | 531.7 | 598.7 | 779.0 | 1127.9 | 1741.8 | 2308.1 | 2325.2 | 2151.9 | 2009.3 | 1803.2 |
| 70° | 381.5 | 393.3 | 455.3 | 618.3 | 939.4 | 1554.2 | 2246.9 | 2283.5 | 2141.1 | 1980.0 | 1705.6 |
| 72.5° | 162.1 | 166.1 | 196.6 | 279.1 | 476.6 | 937.1 | 1840.4 | 1917.4 | 1933.8 | 1774.2 | 1332.5 |
| 75° | 101.6 | 102.8 | 114.8 | 143.2 | 212.0 | 387.6 | 1191.8 | 1296.8 | 1443.8 | 1376.5 | 892.1 |
| 77.5° | 76.6 | 77.6 | 84.5 | 98.6 | 131.7 | 144.7 | 552.9 | 659.3 | 826.9 | 809.7 | 444.0 |
| 80° | 58.7 | 59.3 | 63.9 | 71.7 | 92.7 | 90.6 | 179.4 | 225.4 | 345.1 | 304.5 | 157.1 |
| 82.5° | 46.1 | 46.3 | 50.3 | 51.7 | 64.8 | 61.0 | 90.0 | 100.3 | 139.4 | 115.9 | 76.8 |
| 85° | 40.8 | 41.4 | 45.4 | 37.9 | 41.4 | 36.8 | 49.4 | 53.6 | 74.0 | 69.8 | 29.0 |
| 87.5° | 20.8 | 21.9 | 38.1 | 32.4 | 20.8 | 17.5 | 21.7 | 23.3 | 30.1 | 32.6 | 14.1 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 | 405.9 |
| 2.5° | 401.1 | 401.3 | 401.9 | 402.9 | 404.6 | 406.7 | 409.3 | 411.8 | 413.3 | 414.3 | 413.9 |
| 5° | 397.7 | 397.9 | 399.2 | 401.1 | 403.2 | 406.3 | 410.5 | 413.7 | 416.0 | 417.5 | 417.3 |
| 7.5° | 393.5 | 394.1 | 396.6 | 398.7 | 401.7 | 404.2 | 407.6 | 410.5 | 412.8 | 414.3 | 414.1 |
| 10° | 390.3 | 391.0 | 394.1 | 396.9 | 399.4 | 399.8 | 399.2 | 398.3 | 398.1 | 399.2 | 398.7 |
| 12.5° | 388.9 | 390.1 | 393.1 | 395.0 | 393.9 | 389.9 | 385.3 | 383.4 | 382.8 | 384.9 | 385.1 |
| 15° | 389.3 | 390.3 | 392.9 | 391.6 | 385.9 | 379.2 | 376.7 | 378.1 | 379.4 | 380.7 | 380.9 |
| 17.5° | 390.3 | 391.0 | 391.6 | 387.0 | 379.0 | 374.6 | 373.7 | 372.2 | 368.5 | 366.4 | 366.1 |
| 20° | 392.2 | 393.1 | 392.0 | 384.7 | 377.5 | 371.6 | 361.5 | 352.5 | 343.9 | 339.2 | 337.3 |
| 22.5° | 398.7 | 399.4 | 396.2 | 389.1 | 378.1 | 359.0 | 338.6 | 323.0 | 309.8 | 302.6 | 299.9 |
| 25° | 411.6 | 412.6 | 408.2 | 399.2 | 370.6 | 337.1 | 308.3 | 287.3 | 270.7 | 262.0 | 259.7 |
| 27.5° | 434.1 | 435.1 | 430.3 | 406.7 | 352.9 | 307.9 | 273.0 | 252.2 | 237.9 | 230.5 | 229.4 |
| 30° | 467.7 | 469.2 | 464.8 | 406.5 | 326.0 | 270.7 | 238.5 | 226.3 | 218.1 | 213.0 | 212.8 |
| 32.5° | 514.4 | 519.9 | 501.8 | 399.4 | 292.7 | 233.0 | 212.4 | 208.2 | 204.2 | 200.8 | 200.8 |
| 35° | 573.7 | 586.5 | 538.4 | 384.4 | 256.2 | 207.4 | 197.9 | 193.9 | 188.9 | 185.3 | 184.9 |
| 37.5° | 644.6 | 664.6 | 564.5 | 357.9 | 224.6 | 195.0 | 189.1 | 182.5 | 174.6 | 167.6 | 165.9 |
| 40° | 742.0 | 746.6 | 577.3 | 314.8 | 201.1 | 188.2 | 180.9 | 172.7 | 162.6 | 154.8 | 153.9 |
| 42.5° | 839.8 | 824.6 | 574.8 | 268.6 | 187.6 | 182.1 | 172.5 | 163.4 | 154.4 | 147.8 | 147.8 |
| 45° | 951.0 | 892.8 | 555.6 | 222.1 | 175.4 | 175.2 | 164.7 | 156.0 | 149.1 | 144.3 | 143.2 |
| 47.5° | 1057.4 | 954.0 | 522.6 | 187.8 | 162.8 | 168.2 | 159.6 | 152.7 | 146.4 | 141.7 | 140.9 |
| 50° | 1186.6 | 1024.8 | 487.5 | 163.8 | 150.6 | 162.1 | 157.5 | 153.9 | 147.8 | 139.9 | 139.0 |
| 52.5° | 1314.8 | 1107.7 | 460.4 | 145.7 | 139.9 | 157.3 | 158.8 | 159.2 | 153.5 | 138.0 | 136.9 |
| 55° | 1452.6 | 1196.2 | 431.8 | 131.7 | 131.0 | 155.0 | 161.7 | 161.3 | 158.6 | 138.4 | 136.7 |
| 57.5° | 1583.6 | 1285.2 | 389.1 | 121.8 | 124.1 | 152.7 | 162.4 | 155.6 | 150.8 | 140.5 | 137.8 |
| 60° | 1692.1 | 1358.8 | 326.4 | 114.8 | 118.2 | 148.1 | 158.2 | 148.1 | 139.9 | 140.1 | 137.5 |
| 62.5° | 1744.9 | 1379.4 | 249.6 | 106.8 | 113.4 | 140.5 | 152.1 | 142.4 | 134.8 | 140.9 | 139.4 |
| 65° | 1704.8 | 1320.7 | 177.9 | 99.5 | 107.5 | 131.7 | 148.5 | 137.5 | 132.3 | 145.1 | 143.4 |
| 67.5° | 1560.5 | 1160.9 | 129.1 | 93.0 | 101.8 | 122.6 | 141.7 | 133.1 | 129.8 | 148.3 | 144.5 |
| 69° | 1407.2 | 1002.3 | 111.9 | 89.2 | 97.8 | 117.8 | 137.3 | 130.8 | 127.9 | 143.9 | 138.4 |
| 70° | 1279.7 | 880.1 | 103.3 | 86.9 | 94.4 | 115.0 | 134.0 | 129.3 | 126.0 | 138.6 | 132.1 |
| 72.5° | 917.6 | 568.9 | 86.9 | 79.9 | 85.6 | 108.9 | 126.6 | 123.9 | 118.8 | 125.1 | 120.9 |
| 75° | 554.4 | 297.0 | 73.8 | 72.8 | 76.3 | 100.5 | 118.0 | 114.6 | 109.6 | 110.2 | 108.1 |
| 77.5° | 254.7 | 137.1 | 61.8 | 64.4 | 66.7 | 90.0 | 107.5 | 103.7 | 99.1 | 97.4 | 97.6 |
| 80° | 111.7 | 80.1 | 51.7 | 54.9 | 56.2 | 81.0 | 96.1 | 91.9 | 86.9 | 95.9 | 89.0 |
| 82.5° | 60.4 | 46.5 | 40.4 | 42.5 | 46.1 | 70.5 | 83.5 | 78.0 | 73.2 | 85.2 | 68.8 |
| 85° | 24.4 | 23.8 | 27.3 | 29.4 | 32.0 | 50.7 | 69.8 | 64.1 | 58.3 | 52.2 | 50.9 |
| 87.5° | 10.5 | 11.4 | 13.5 | 14.3 | 17.0 | 31.5 | 46.9 | 41.0 | 41.2 | 35.3 | 34.7 |
| 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)