

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: P299398

Luminaire Tested: **GAA-AF-01-LED-U-5NQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299398  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-01-LED-U-5NQ-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

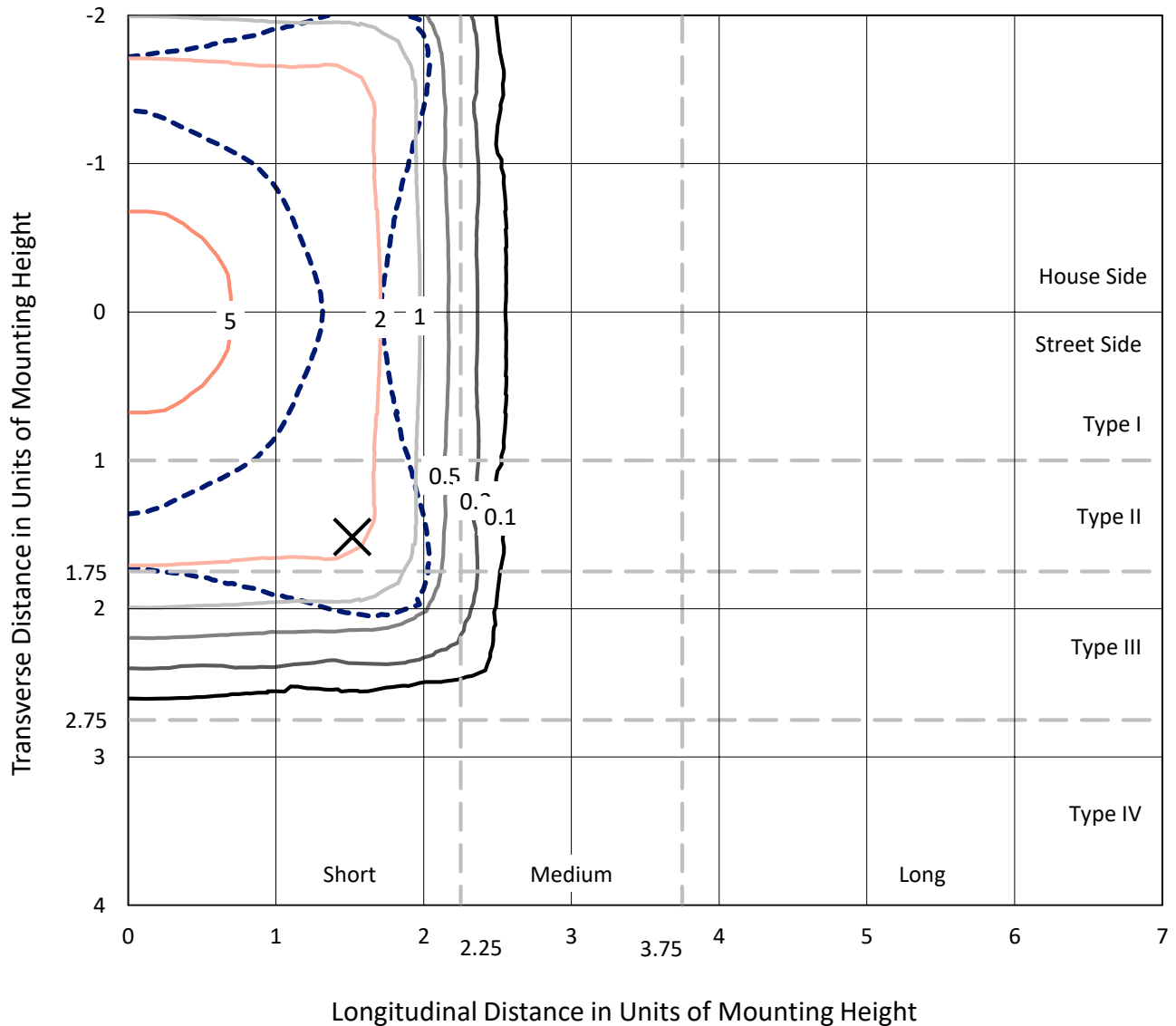
Lumens per Lamp: N/A  
Luminaire Lumens: 5175.8 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (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

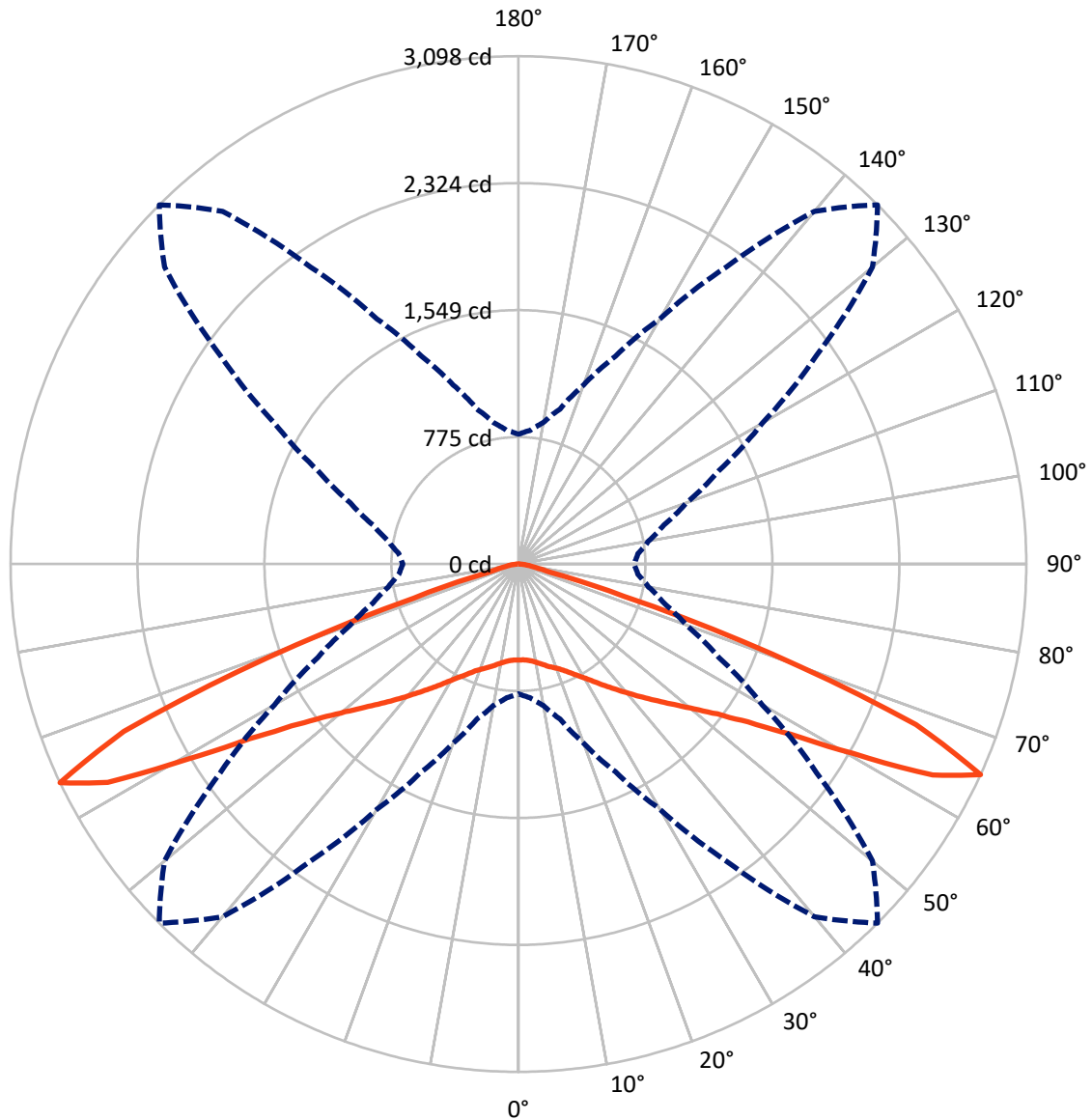
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2587.9   | 0.0    | 2587.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2587.9   | 0.0    | 2587.9 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 5175.8   | 0.0    | 5175.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 57.1   | 1.1       |
| 10°-20°   | 183.1  | 3.5       |
| 20°-30°   | 342.3  | 6.6       |
| 30°-40°   | 578.9  | 11.2      |
| 40°-50°   | 946.6  | 18.3      |
| 50°-60°   | 1505.3 | 29.1      |
| 60°-70°   | 1360.7 | 26.3      |
| 70°-80°   | 172.2  | 3.3       |
| 80°-90°   | 29.6   | 0.6       |
| 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°    | 5175.8 | 100.0     |
| 0°-180°   | 5175.8 | 100.0     |



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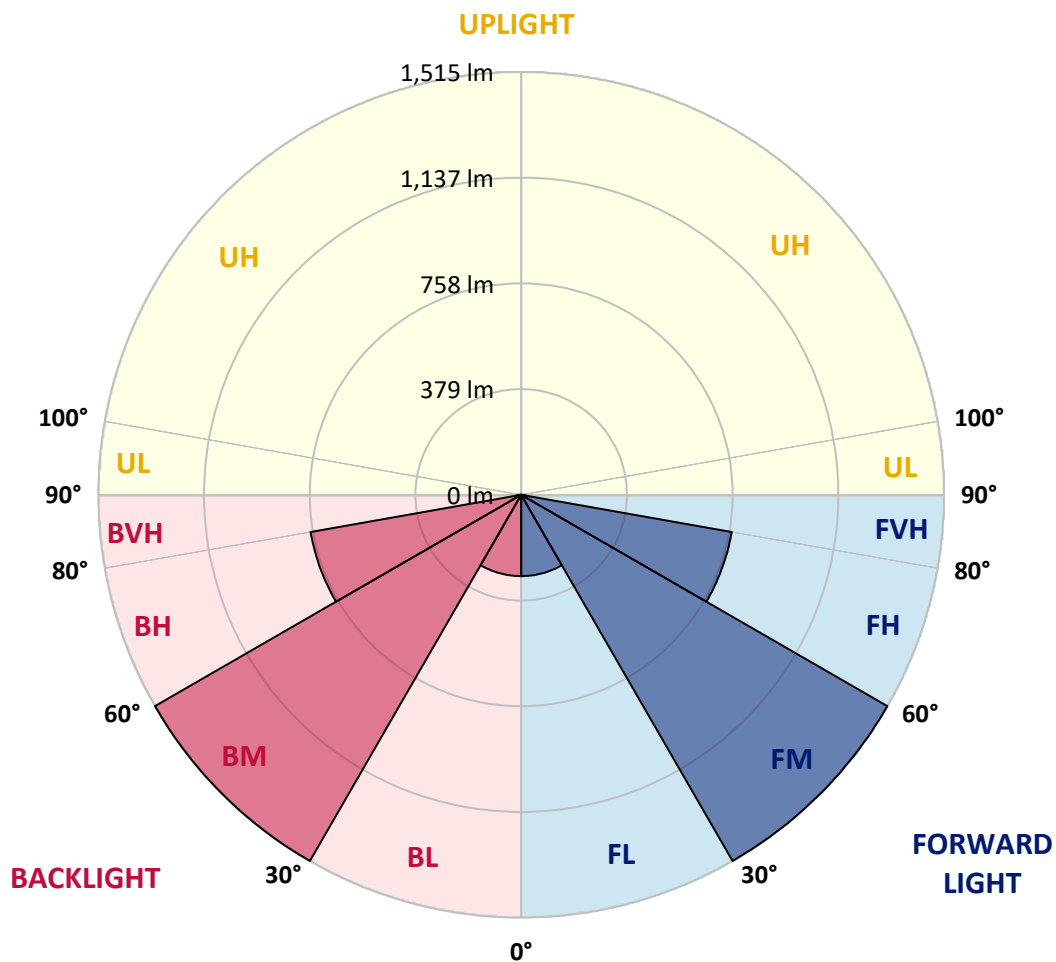
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 291.2  | 5.6       |                         |      |         |
| FM   | (30°-60°)   | 1515.4 | 29.3      |                         |      |         |
| FH   | (60°-80°)   | 766.4  | 14.8      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 14.8   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 291.2  | 5.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 1515.4 | 29.3      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 766.4  | 14.8      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 14.8   | 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-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  |
| 2.5°  | 586.1  | 586.6  | 587.1  | 586.6  | 587.1  | 586.4  | 585.9  | 586.6  | 585.9  | 585.2  | 585.6  |
| 5°    | 591.2  | 591.5  | 591.5  | 590.7  | 591.5  | 591.0  | 590.3  | 591.2  | 590.5  | 589.8  | 590.3  |
| 7.5°  | 599.7  | 600.7  | 600.0  | 599.2  | 599.7  | 599.2  | 598.7  | 599.0  | 598.7  | 598.0  | 598.3  |
| 10°   | 611.1  | 611.8  | 611.3  | 611.1  | 611.6  | 611.3  | 610.9  | 610.6  | 610.9  | 610.1  | 610.1  |
| 12.5° | 624.9  | 624.7  | 624.4  | 624.7  | 625.4  | 625.4  | 625.2  | 625.4  | 625.9  | 626.1  | 625.6  |
| 15°   | 638.5  | 639.0  | 639.0  | 639.0  | 640.4  | 641.6  | 642.4  | 642.9  | 643.8  | 644.1  | 643.1  |
| 17.5° | 655.5  | 655.5  | 655.2  | 655.5  | 656.9  | 658.9  | 659.6  | 660.6  | 661.5  | 662.2  | 661.0  |
| 20°   | 674.4  | 674.9  | 674.9  | 675.3  | 677.3  | 679.5  | 679.5  | 679.9  | 679.5  | 679.9  | 679.2  |
| 22.5° | 697.4  | 698.9  | 698.9  | 699.1  | 701.0  | 703.7  | 703.0  | 703.7  | 702.5  | 703.5  | 702.5  |
| 25°   | 727.5  | 729.6  | 729.2  | 729.2  | 730.6  | 732.3  | 732.5  | 734.0  | 733.8  | 735.0  | 734.2  |
| 27.5° | 761.4  | 764.8  | 765.8  | 765.5  | 766.5  | 768.2  | 768.7  | 770.4  | 769.4  | 770.4  | 769.9  |
| 30°   | 802.1  | 803.6  | 805.5  | 806.2  | 807.5  | 809.1  | 809.1  | 809.4  | 808.2  | 809.6  | 810.4  |
| 32.5° | 844.3  | 847.0  | 848.9  | 853.3  | 855.4  | 856.7  | 856.4  | 856.9  | 855.7  | 857.6  | 859.1  |
| 35°   | 900.0  | 902.0  | 905.1  | 908.5  | 911.4  | 911.2  | 910.5  | 910.7  | 910.7  | 912.4  | 913.9  |
| 37.5° | 967.2  | 967.7  | 971.8  | 976.6  | 978.1  | 976.6  | 972.3  | 971.3  | 969.1  | 971.3  | 973.7  |
| 40°   | 1038.2 | 1039.9 | 1048.2 | 1051.3 | 1052.0 | 1049.4 | 1043.1 | 1039.4 | 1034.6 | 1037.2 | 1040.6 |
| 42.5° | 1112.6 | 1116.0 | 1123.5 | 1129.1 | 1131.5 | 1129.8 | 1121.1 | 1115.5 | 1109.2 | 1110.7 | 1114.1 |
| 45°   | 1195.1 | 1199.2 | 1209.8 | 1215.2 | 1219.8 | 1217.1 | 1208.6 | 1200.1 | 1190.2 | 1190.9 | 1196.3 |
| 47.5° | 1287.2 | 1291.3 | 1305.1 | 1314.1 | 1316.5 | 1316.0 | 1306.6 | 1294.9 | 1281.4 | 1280.9 | 1285.5 |
| 50°   | 1390.4 | 1394.6 | 1411.8 | 1425.6 | 1432.6 | 1431.9 | 1420.7 | 1404.3 | 1387.8 | 1388.0 | 1393.8 |
| 52.5° | 1491.3 | 1496.4 | 1514.3 | 1538.1 | 1551.9 | 1561.8 | 1555.0 | 1539.5 | 1519.4 | 1519.9 | 1525.2 |
| 55°   | 1585.8 | 1594.3 | 1614.9 | 1647.1 | 1672.8 | 1700.7 | 1708.7 | 1708.2 | 1696.1 | 1699.5 | 1704.8 |
| 57.5° | 1631.6 | 1644.2 | 1676.0 | 1726.9 | 1779.3 | 1836.0 | 1884.0 | 1919.8 | 1935.1 | 1958.1 | 1952.8 |
| 60°   | 1544.8 | 1565.0 | 1611.7 | 1686.7 | 1790.2 | 1908.5 | 2035.2 | 2159.1 | 2264.8 | 2344.5 | 2298.7 |
| 62.5° | 1264.9 | 1291.0 | 1347.8 | 1443.8 | 1600.4 | 1789.7 | 2032.3 | 2325.1 | 2644.2 | 2836.6 | 2699.2 |
| 65°   | 791.5  | 818.6  | 876.3  | 979.1  | 1162.3 | 1397.7 | 1726.9 | 2212.2 | 2808.3 | 3098.4 | 2818.7 |
| 67.5° | 308.6  | 323.4  | 354.6  | 420.3  | 558.0  | 767.5  | 1097.9 | 1648.6 | 2361.5 | 2615.8 | 2317.6 |
| 70°   | 154.7  | 156.1  | 161.9  | 174.0  | 203.6  | 264.5  | 402.4  | 764.3  | 1354.3 | 1635.7 | 1305.6 |
| 72.5° | 111.7  | 112.0  | 114.9  | 120.2  | 129.7  | 143.3  | 169.4  | 233.9  | 440.4  | 673.2  | 412.8  |
| 75°   | 85.6   | 86.5   | 88.2   | 91.1   | 96.2   | 103.0  | 112.5  | 134.8  | 167.0  | 193.7  | 162.9  |
| 77.5° | 65.9   | 67.9   | 69.1   | 71.8   | 74.9   | 79.5   | 82.2   | 90.7   | 105.4  | 111.0  | 109.3  |
| 80°   | 50.2   | 51.9   | 54.5   | 56.7   | 58.9   | 61.1   | 60.1   | 64.0   | 71.8   | 76.4   | 73.9   |
| 82.5° | 32.0   | 33.9   | 41.7   | 43.6   | 44.6   | 46.1   | 44.4   | 44.6   | 48.0   | 50.9   | 48.0   |
| 85°   | 20.6   | 21.8   | 26.4   | 28.8   | 29.1   | 30.1   | 29.3   | 27.6   | 27.6   | 25.2   | 28.4   |
| 87.5° | 9.5    | 9.7    | 11.9   | 14.1   | 14.5   | 13.1   | 12.8   | 12.4   | 9.9    | 9.5    | 10.2   |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  | 585.6  |
| 2.5°  | 585.4  | 585.9  | 586.1  | 586.9  | 587.1  | 587.1  | 587.3  | 587.8  |
| 5°    | 590.0  | 590.7  | 591.0  | 592.0  | 592.2  | 592.0  | 592.4  | 592.7  |
| 7.5°  | 598.3  | 599.5  | 600.0  | 600.9  | 600.2  | 601.2  | 601.4  | 601.4  |
| 10°   | 610.4  | 611.6  | 611.8  | 612.8  | 612.3  | 612.8  | 612.8  | 612.3  |
| 12.5° | 626.4  | 626.6  | 625.9  | 626.6  | 625.6  | 626.1  | 625.4  | 624.9  |
| 15°   | 644.1  | 643.3  | 641.6  | 641.6  | 640.2  | 640.4  | 640.2  | 639.9  |
| 17.5° | 661.3  | 659.8  | 658.6  | 658.1  | 656.9  | 656.7  | 655.9  | 655.9  |
| 20°   | 680.2  | 679.5  | 678.7  | 677.8  | 676.6  | 675.3  | 675.1  | 675.6  |
| 22.5° | 703.0  | 702.7  | 702.7  | 702.2  | 700.5  | 699.3  | 698.6  | 698.6  |
| 25°   | 733.5  | 731.3  | 731.3  | 731.1  | 730.4  | 729.6  | 728.2  | 728.9  |
| 27.5° | 767.9  | 766.7  | 767.7  | 767.5  | 766.7  | 766.7  | 765.8  | 765.8  |
| 30°   | 810.4  | 809.9  | 811.3  | 810.1  | 807.7  | 807.5  | 806.5  | 805.3  |
| 32.5° | 859.3  | 858.8  | 861.0  | 859.6  | 855.7  | 853.5  | 851.6  | 850.6  |
| 35°   | 913.9  | 914.1  | 916.8  | 915.8  | 911.4  | 910.0  | 906.6  | 906.1  |
| 37.5° | 973.5  | 977.4  | 982.0  | 983.0  | 979.3  | 978.3  | 974.7  | 972.8  |
| 40°   | 1043.6 | 1048.6 | 1055.7 | 1057.4 | 1053.5 | 1052.8 | 1047.7 | 1045.0 |
| 42.5° | 1118.2 | 1126.9 | 1135.7 | 1137.1 | 1133.2 | 1129.4 | 1124.5 | 1122.6 |
| 45°   | 1201.6 | 1212.0 | 1223.4 | 1226.3 | 1220.5 | 1215.9 | 1209.6 | 1209.6 |
| 47.5° | 1295.2 | 1308.3 | 1321.1 | 1329.1 | 1323.8 | 1318.9 | 1311.4 | 1306.6 |
| 50°   | 1405.7 | 1423.6 | 1440.4 | 1448.6 | 1440.1 | 1430.9 | 1417.8 | 1413.5 |
| 52.5° | 1544.4 | 1563.8 | 1578.3 | 1573.9 | 1560.8 | 1548.0 | 1533.7 | 1527.9 |
| 55°   | 1721.3 | 1727.9 | 1727.9 | 1711.4 | 1685.2 | 1663.6 | 1641.1 | 1633.6 |
| 57.5° | 1942.6 | 1917.4 | 1878.6 | 1829.4 | 1767.6 | 1713.8 | 1677.4 | 1660.2 |
| 60°   | 2202.7 | 2081.5 | 1944.6 | 1810.0 | 1699.5 | 1608.4 | 1554.3 | 1529.6 |
| 62.5° | 2376.1 | 2059.0 | 1784.6 | 1568.6 | 1409.6 | 1299.8 | 1225.1 | 1196.0 |
| 65°   | 2220.7 | 1717.2 | 1349.7 | 1091.3 | 918.0  | 806.2  | 732.3  | 705.2  |
| 67.5° | 1626.5 | 1076.0 | 718.7  | 515.1  | 377.4  | 301.1  | 270.8  | 258.2  |
| 70°   | 730.1  | 378.9  | 232.2  | 181.3  | 156.4  | 143.5  | 137.9  | 136.0  |
| 72.5° | 220.1  | 159.3  | 134.3  | 121.2  | 111.3  | 105.0  | 100.4  | 99.9   |
| 75°   | 132.8  | 110.5  | 98.2   | 90.4   | 84.1   | 79.0   | 76.6   | 75.9   |
| 77.5° | 92.8   | 81.2   | 75.4   | 69.8   | 65.0   | 61.1   | 58.9   | 57.2   |
| 80°   | 65.2   | 59.6   | 57.0   | 53.8   | 50.7   | 47.0   | 43.9   | 42.4   |
| 82.5° | 43.6   | 42.4   | 42.4   | 40.5   | 37.8   | 34.4   | 28.1   | 26.7   |
| 85°   | 28.1   | 27.9   | 28.4   | 27.6   | 25.7   | 22.1   | 18.2   | 17.2   |
| 87.5° | 13.1   | 13.3   | 14.8   | 14.5   | 14.1   | 11.6   | 9.2    | 8.7    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)