

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: P299636

Luminaire Tested: **GAA-AF-01-LED-U-5MQ-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299636  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
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-5MQ-7030-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5098.8 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - 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

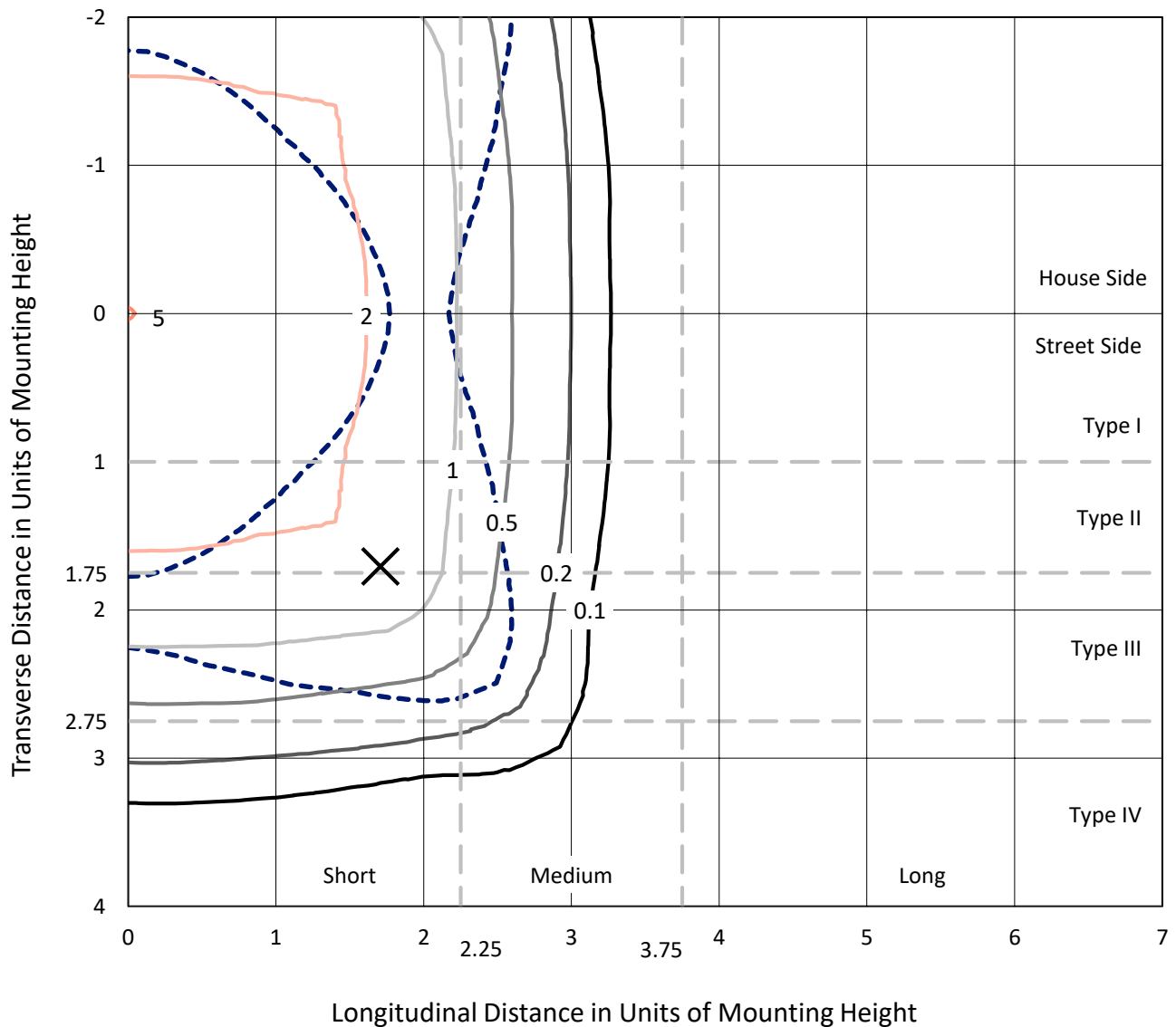


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

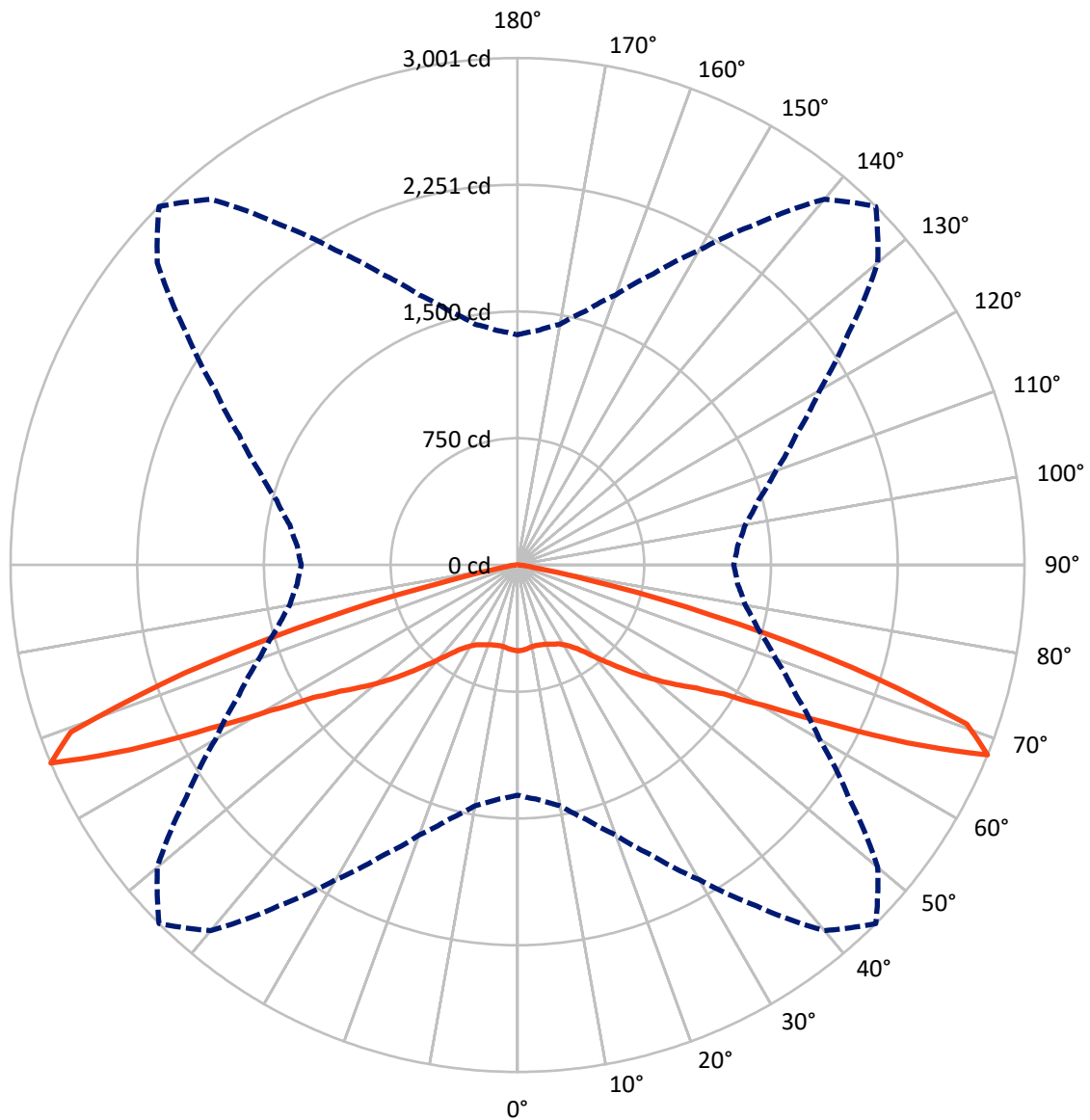


Based on 10 foot mounting height. Maximum calculated value = 5.1 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 2549.4   | 0.0    | 2549.4 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 2549.4   | 0.0    | 2549.4 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 5098.8   | 0.0    | 5098.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 47.6   | 0.9       |
| 10°-20°   | 138.0  | 2.7       |
| 20°-30°   | 234.6  | 4.6       |
| 30°-40°   | 383.5  | 7.5       |
| 40°-50°   | 684.6  | 13.4      |
| 50°-60°   | 1154.3 | 22.6      |
| 60°-70°   | 1791.3 | 35.1      |
| 70°-80°   | 629.4  | 12.3      |
| 80°-90°   | 35.6   | 0.7       |
| 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°    | 5098.8 | 100.0     |
| 0°-180°   | 5098.8 | 100.0     |



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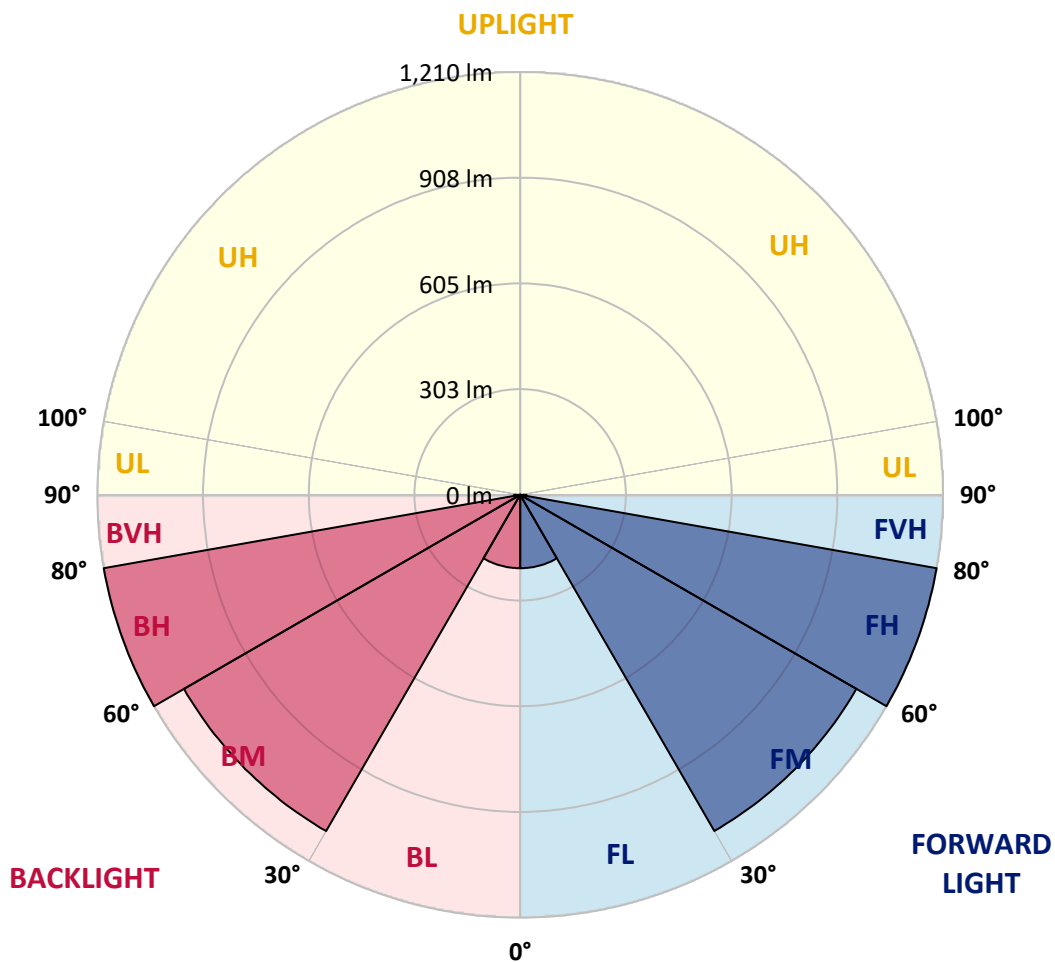
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 210.1  | 4.1       |                         |      |         |
| FM (30°-60°)   | 1111.2 | 21.8      |                         |      |         |
| FH (60°-80°)   | 1210.3 | 23.7      |                         |      | G1/1800 |
| FVH (80°-90°)  | 17.8   | 0.3       |                         |      | G1/100  |
| BL (0°-30°)    | 210.1  | 4.1       | B1/500                  |      |         |
| BM (30°-60°)   | 1111.2 | 21.8      | B2/2500                 |      |         |
| BH (60°-80°)   | 1210.3 | 23.7      | B3/2500                 |      | G1/1800 |
| BVH (80°-90°)  | 17.8   | 0.3       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  |
| 2.5°  | 506.2  | 506.7  | 506.7  | 506.7  | 506.5  | 506.5  | 506.0  | 506.5  | 506.2  | 505.5  | 505.8  |
| 5°    | 502.0  | 502.5  | 502.5  | 502.3  | 503.0  | 502.7  | 502.0  | 502.5  | 502.3  | 501.8  | 502.0  |
| 7.5°  | 495.9  | 496.6  | 496.6  | 496.4  | 497.1  | 496.9  | 496.4  | 496.6  | 496.6  | 495.9  | 495.9  |
| 10°   | 489.1  | 489.6  | 489.6  | 489.4  | 490.5  | 490.5  | 490.3  | 491.0  | 491.2  | 490.5  | 490.1  |
| 12.5° | 482.8  | 483.5  | 483.5  | 484.4  | 485.6  | 486.1  | 487.2  | 488.2  | 489.1  | 488.9  | 488.0  |
| 15°   | 479.0  | 479.5  | 480.4  | 481.6  | 483.5  | 485.1  | 487.0  | 489.1  | 491.0  | 491.5  | 490.1  |
| 17.5° | 476.7  | 477.4  | 478.8  | 480.4  | 483.0  | 485.8  | 488.7  | 491.5  | 494.0  | 495.0  | 493.3  |
| 20°   | 476.0  | 476.5  | 477.9  | 480.7  | 484.2  | 488.4  | 492.4  | 495.7  | 499.2  | 500.4  | 499.2  |
| 22.5° | 477.4  | 478.3  | 480.0  | 483.3  | 488.0  | 493.3  | 498.0  | 502.5  | 506.9  | 509.1  | 507.4  |
| 25°   | 483.7  | 484.7  | 486.8  | 491.0  | 496.2  | 501.8  | 507.2  | 512.3  | 516.3  | 518.4  | 517.3  |
| 27.5° | 495.5  | 496.6  | 499.2  | 503.4  | 509.1  | 515.2  | 521.0  | 525.2  | 528.5  | 529.2  | 527.8  |
| 30°   | 513.0  | 515.6  | 518.7  | 523.4  | 529.9  | 535.1  | 540.9  | 544.7  | 548.7  | 548.7  | 547.5  |
| 32.5° | 540.5  | 543.1  | 546.3  | 550.8  | 555.9  | 561.6  | 566.7  | 570.0  | 574.2  | 574.5  | 571.7  |
| 35°   | 581.5  | 582.7  | 585.5  | 588.3  | 593.0  | 597.9  | 602.4  | 604.5  | 608.0  | 608.2  | 605.7  |
| 37.5° | 635.7  | 635.9  | 637.8  | 638.7  | 642.9  | 648.3  | 652.6  | 654.0  | 657.2  | 656.8  | 654.2  |
| 40°   | 698.7  | 699.9  | 700.6  | 702.0  | 706.5  | 711.6  | 716.1  | 716.8  | 720.3  | 719.6  | 716.3  |
| 42.5° | 771.7  | 772.1  | 776.1  | 778.2  | 782.5  | 785.0  | 790.7  | 791.4  | 795.6  | 793.7  | 790.0  |
| 45°   | 853.5  | 857.7  | 861.5  | 865.7  | 870.2  | 873.2  | 877.7  | 876.7  | 879.5  | 876.7  | 874.6  |
| 47.5° | 939.6  | 942.6  | 951.0  | 957.6  | 964.9  | 967.5  | 973.8  | 971.0  | 973.8  | 969.8  | 969.1  |
| 50°   | 1034.3 | 1039.7 | 1046.9 | 1054.5 | 1062.2 | 1066.4 | 1074.6 | 1071.1 | 1074.9 | 1071.1 | 1069.0 |
| 52.5° | 1127.6 | 1129.0 | 1145.0 | 1156.0 | 1166.8 | 1171.7 | 1176.6 | 1175.0 | 1175.2 | 1175.0 | 1172.9 |
| 55°   | 1216.2 | 1219.5 | 1235.5 | 1250.5 | 1269.2 | 1283.1 | 1291.5 | 1290.6 | 1288.5 | 1286.4 | 1282.8 |
| 57.5° | 1316.1 | 1319.4 | 1337.7 | 1356.2 | 1377.6 | 1397.3 | 1414.4 | 1432.0 | 1438.8 | 1440.6 | 1432.9 |
| 60°   | 1451.2 | 1451.0 | 1475.3 | 1497.9 | 1528.3 | 1557.6 | 1595.2 | 1633.4 | 1677.2 | 1697.6 | 1670.7 |
| 62.5° | 1588.6 | 1594.2 | 1629.4 | 1669.3 | 1732.1 | 1793.3 | 1862.5 | 1930.5 | 1999.9 | 2056.4 | 1996.4 |
| 65°   | 1572.2 | 1593.8 | 1646.0 | 1736.3 | 1852.4 | 1990.3 | 2139.4 | 2297.2 | 2439.8 | 2537.8 | 2427.8 |
| 67.5° | 1362.6 | 1393.3 | 1446.5 | 1556.2 | 1701.4 | 1900.2 | 2150.6 | 2462.7 | 2825.5 | 3000.9 | 2783.5 |
| 70°   | 987.6  | 1022.3 | 1078.1 | 1185.3 | 1329.0 | 1518.0 | 1790.0 | 2164.7 | 2644.9 | 2821.7 | 2582.3 |
| 72.5° | 491.5  | 510.2  | 544.7  | 612.9  | 721.7  | 875.1  | 1121.7 | 1481.9 | 1906.8 | 2069.0 | 1850.3 |
| 75°   | 166.9  | 175.6  | 181.5  | 203.8  | 238.2  | 298.5  | 421.1  | 647.9  | 988.3  | 1184.8 | 974.3  |
| 77.5° | 96.4   | 96.6   | 100.6  | 104.6  | 110.4  | 117.0  | 133.4  | 175.2  | 302.9  | 430.3  | 313.5  |
| 80°   | 62.4   | 62.1   | 65.4   | 68.5   | 72.5   | 75.7   | 76.7   | 81.1   | 93.6   | 110.9  | 99.2   |
| 82.5° | 32.4   | 36.3   | 43.6   | 47.6   | 55.1   | 56.5   | 54.6   | 53.0   | 56.0   | 58.2   | 59.6   |
| 85°   | 17.8   | 15.5   | 23.2   | 30.0   | 33.3   | 33.8   | 33.8   | 31.9   | 33.1   | 32.4   | 35.2   |
| 87.5° | 8.2    | 7.5    | 9.1    | 14.8   | 15.7   | 13.4   | 14.1   | 12.4   | 8.9    | 8.7    | 9.8    |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  | 508.1  |
| 2.5°  | 505.8  | 506.0  | 506.0  | 506.7  | 506.9  | 507.4  | 507.9  | 508.1  |
| 5°    | 501.8  | 502.5  | 502.0  | 502.7  | 502.7  | 503.2  | 503.2  | 503.4  |
| 7.5°  | 495.9  | 496.6  | 496.6  | 496.6  | 496.4  | 497.1  | 497.1  | 497.1  |
| 10°   | 489.8  | 490.3  | 490.1  | 489.6  | 489.1  | 489.8  | 489.6  | 489.4  |
| 12.5° | 488.0  | 486.8  | 485.8  | 485.4  | 484.4  | 484.7  | 484.0  | 484.0  |
| 15°   | 489.1  | 487.0  | 485.4  | 484.7  | 483.7  | 483.3  | 482.8  | 483.0  |
| 17.5° | 492.2  | 489.6  | 487.5  | 486.3  | 485.1  | 484.4  | 483.5  | 483.7  |
| 20°   | 497.6  | 494.5  | 491.5  | 489.1  | 487.0  | 485.8  | 485.1  | 484.9  |
| 22.5° | 505.5  | 501.1  | 496.6  | 493.1  | 490.3  | 488.7  | 488.0  | 487.5  |
| 25°   | 514.7  | 509.8  | 504.6  | 500.6  | 497.8  | 495.7  | 494.3  | 494.3  |
| 27.5° | 526.2  | 522.2  | 517.5  | 512.8  | 510.2  | 508.1  | 507.2  | 506.7  |
| 30°   | 545.4  | 541.6  | 537.9  | 533.4  | 530.2  | 528.0  | 526.4  | 525.0  |
| 32.5° | 570.0  | 567.0  | 563.9  | 560.6  | 557.6  | 554.8  | 552.2  | 551.0  |
| 35°   | 604.7  | 602.4  | 600.3  | 596.5  | 595.3  | 593.7  | 592.3  | 591.1  |
| 37.5° | 652.6  | 651.6  | 651.6  | 647.6  | 646.7  | 646.0  | 644.6  | 644.8  |
| 40°   | 715.4  | 716.3  | 715.2  | 713.8  | 713.1  | 711.2  | 711.2  | 712.8  |
| 42.5° | 789.7  | 790.4  | 793.0  | 790.7  | 793.2  | 790.9  | 789.5  | 790.7  |
| 45°   | 876.0  | 878.6  | 883.8  | 881.4  | 883.0  | 879.1  | 874.1  | 874.4  |
| 47.5° | 972.9  | 975.2  | 977.3  | 975.7  | 975.9  | 969.3  | 962.8  | 961.1  |
| 50°   | 1073.4 | 1074.4 | 1075.6 | 1073.2 | 1073.7 | 1066.4 | 1058.9 | 1059.1 |
| 52.5° | 1172.9 | 1177.3 | 1182.0 | 1175.7 | 1174.3 | 1166.1 | 1155.5 | 1151.3 |
| 55°   | 1286.6 | 1292.9 | 1287.5 | 1276.5 | 1265.5 | 1254.5 | 1240.6 | 1238.3 |
| 57.5° | 1426.8 | 1416.0 | 1399.1 | 1378.3 | 1363.0 | 1347.6 | 1333.5 | 1327.6 |
| 60°   | 1621.9 | 1581.3 | 1550.8 | 1519.9 | 1500.4 | 1481.4 | 1462.9 | 1460.1 |
| 62.5° | 1897.6 | 1827.5 | 1766.8 | 1702.8 | 1650.5 | 1609.7 | 1577.1 | 1568.0 |
| 65°   | 2243.3 | 2077.5 | 1933.7 | 1799.6 | 1683.1 | 1595.2 | 1539.8 | 1515.4 |
| 67.5° | 2391.9 | 2064.6 | 1818.1 | 1627.8 | 1475.3 | 1368.9 | 1309.1 | 1279.3 |
| 70°   | 2101.9 | 1712.2 | 1444.2 | 1253.5 | 1114.7 | 1001.2 | 947.1  | 915.2  |
| 72.5° | 1446.0 | 1089.2 | 861.2  | 703.0  | 592.1  | 497.1  | 459.6  | 456.8  |
| 75°   | 649.3  | 430.0  | 296.4  | 228.4  | 192.3  | 167.2  | 159.4  | 153.6  |
| 77.5° | 181.7  | 134.4  | 119.8  | 112.1  | 104.6  | 95.9   | 92.6   | 93.3   |
| 80°   | 88.4   | 83.5   | 80.2   | 75.3   | 68.5   | 61.2   | 57.9   | 59.3   |
| 82.5° | 58.6   | 57.9   | 60.0   | 56.5   | 46.7   | 39.6   | 33.3   | 30.5   |
| 85°   | 35.6   | 36.1   | 36.8   | 37.0   | 31.4   | 22.0   | 15.0   | 16.9   |
| 87.5° | 14.1   | 16.2   | 17.6   | 18.3   | 17.1   | 10.6   | 8.4    | 8.7    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)