

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: P299995

Luminaire Tested: **GAA-AF-01-LED-U-SL3-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299995  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)  
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-SL3-7027-600-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI  
2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III w/Spill  
Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2768.2 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B0 - 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

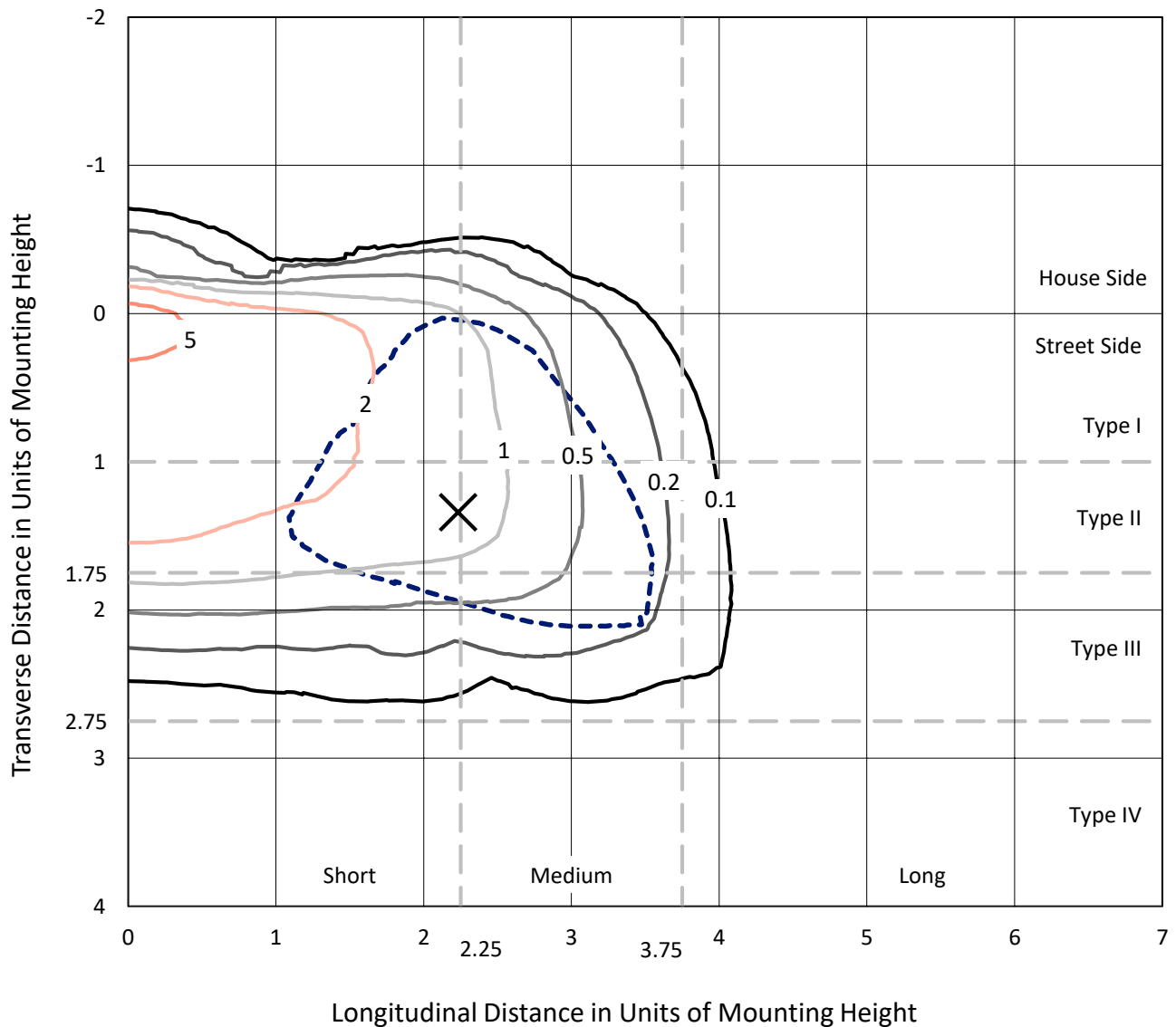


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

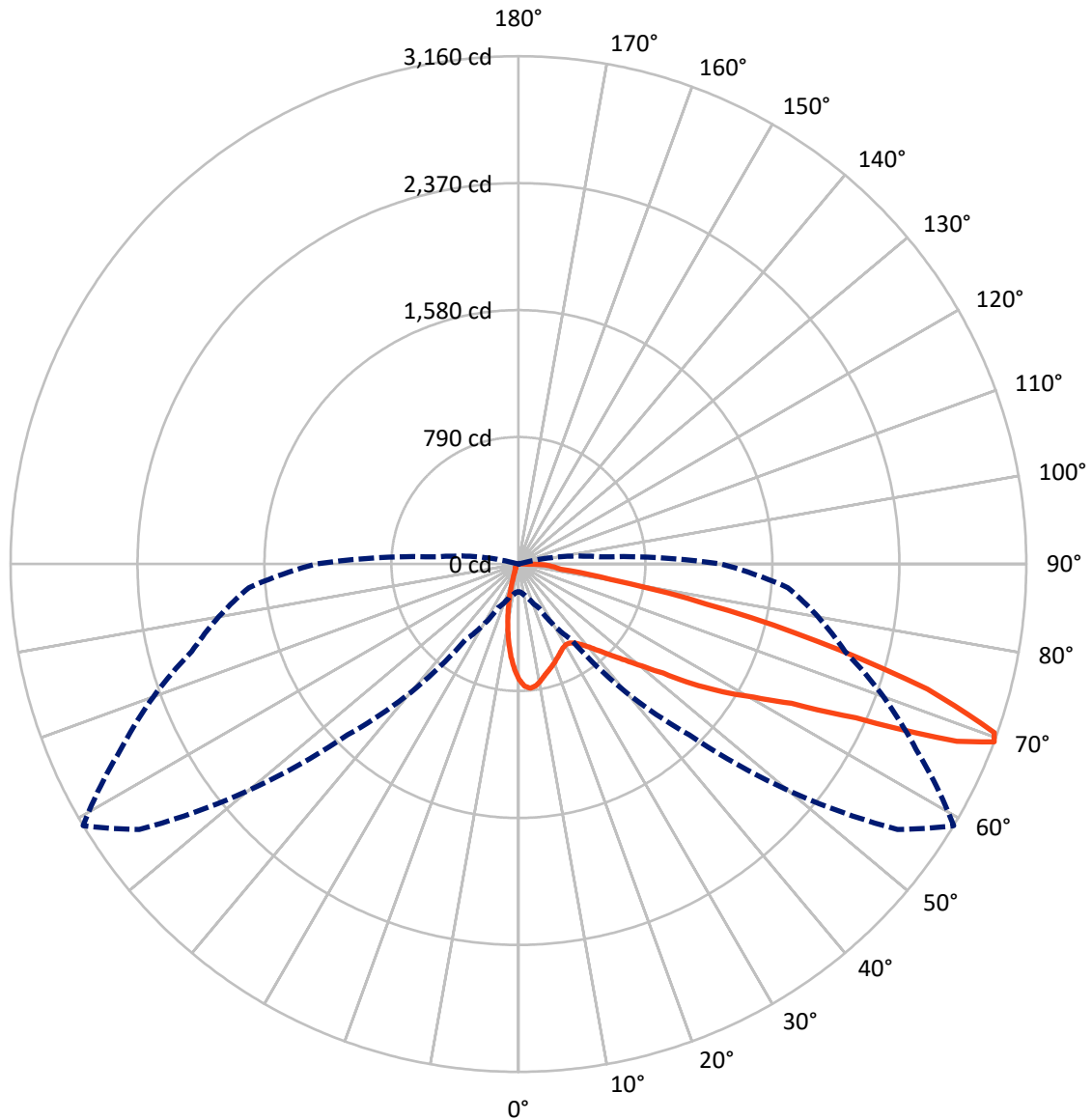


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 225.4    | 0.0    | 225.4  |
|                    | % Fixture | 8.1      | 0.0    | 8.1    |
| <b>Street Side</b> | Lumens    | 2542.8   | 0.0    | 2542.8 |
|                    | % Fixture | 91.9     | 0.0    | 91.9   |
| <b>Total</b>       | Lumens    | 2768.2   | 0.0    | 2768.2 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 58.5   | 2.1       |
| 10°-20°   | 120.8  | 4.4       |
| 20°-30°   | 162.6  | 5.9       |
| 30°-40°   | 236.1  | 8.5       |
| 40°-50°   | 393.1  | 14.2      |
| 50°-60°   | 613.3  | 22.2      |
| 60°-70°   | 758.9  | 27.4      |
| 70°-80°   | 384.6  | 13.9      |
| 80°-90°   | 40.2   | 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°    | 2768.2 | 100.0     |
| 0°-180°   | 2768.2 | 100.0     |



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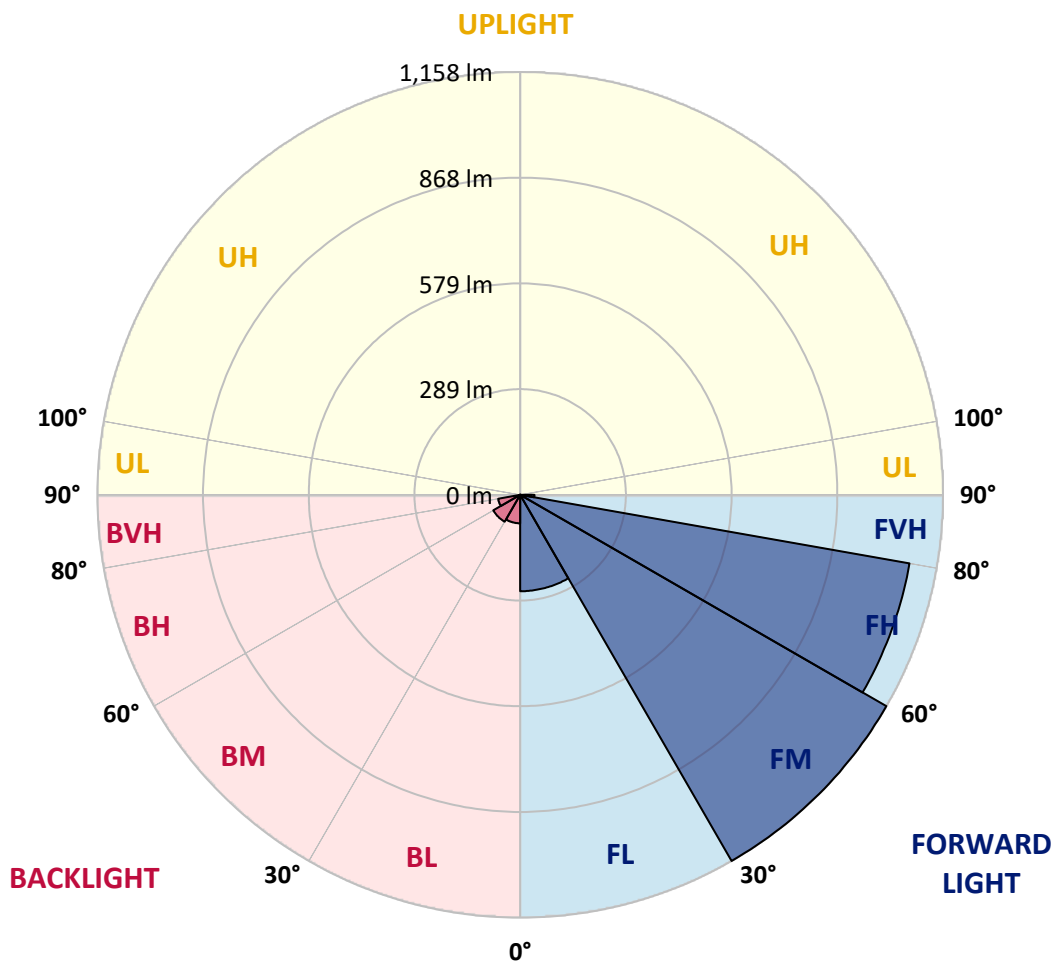
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 263.9  | 9.5       |                         |      |         |
| FM   | (30°-60°)   | 1157.6 | 41.8      |                         |      |         |
| FH   | (60°-80°)   | 1082.3 | 39.1      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 39.0   | 1.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 78.0   | 2.8       | B0/110                  |      |         |
| BM   | (30°-60°)   | 84.9   | 3.1       | B0/220                  |      |         |
| BH   | (60°-80°)   | 61.2   | 2.2       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.2    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 59°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  | 720.5  |
| 2.5°  | 789.7  | 789.4  | 786.0  | 784.4  | 781.6  | 775.6  | 766.4  | 761.6  | 753.7  | 740.1  | 721.8  |
| 5°    | 782.5  | 786.3  | 788.3  | 788.5  | 790.5  | 788.3  | 780.0  | 776.0  | 765.2  | 743.2  | 710.4  |
| 7.5°  | 733.7  | 735.1  | 740.9  | 745.9  | 755.6  | 764.8  | 767.8  | 766.1  | 759.7  | 736.2  | 692.5  |
| 10°   | 681.4  | 682.8  | 689.7  | 696.3  | 709.4  | 723.6  | 738.7  | 741.8  | 744.5  | 726.2  | 675.3  |
| 12.5° | 636.3  | 637.7  | 644.8  | 653.4  | 668.7  | 686.3  | 709.6  | 714.7  | 726.5  | 716.6  | 661.5  |
| 15°   | 597.5  | 598.1  | 605.0  | 615.6  | 634.0  | 656.5  | 683.0  | 691.3  | 709.3  | 709.9  | 649.5  |
| 17.5° | 564.5  | 566.0  | 570.3  | 580.4  | 600.5  | 628.3  | 659.2  | 671.1  | 692.2  | 704.3  | 637.7  |
| 20°   | 544.3  | 545.8  | 545.7  | 551.3  | 569.3  | 599.1  | 635.4  | 649.6  | 675.3  | 698.5  | 627.3  |
| 22.5° | 540.4  | 540.4  | 536.3  | 535.5  | 546.2  | 571.0  | 610.7  | 628.0  | 660.1  | 696.0  | 619.9  |
| 25°   | 554.3  | 553.6  | 543.5  | 535.2  | 535.7  | 550.5  | 586.7  | 607.3  | 647.3  | 697.7  | 616.0  |
| 27.5° | 583.7  | 582.9  | 570.1  | 554.3  | 541.6  | 541.5  | 568.5  | 590.8  | 637.1  | 705.8  | 617.5  |
| 30°   | 624.4  | 624.1  | 610.2  | 590.3  | 567.3  | 546.2  | 562.3  | 582.5  | 630.5  | 720.5  | 621.1  |
| 32.5° | 668.9  | 668.4  | 657.9  | 637.0  | 607.8  | 567.3  | 568.9  | 585.8  | 632.4  | 740.1  | 629.9  |
| 35°   | 716.0  | 715.2  | 710.7  | 692.4  | 660.3  | 606.3  | 590.5  | 603.6  | 644.3  | 769.4  | 647.1  |
| 37.5° | 767.0  | 767.8  | 771.1  | 753.6  | 719.9  | 660.9  | 626.6  | 635.5  | 668.2  | 809.1  | 675.1  |
| 40°   | 842.3  | 842.2  | 843.3  | 820.2  | 787.9  | 727.7  | 677.2  | 680.0  | 708.3  | 861.9  | 717.7  |
| 42.5° | 979.0  | 969.4  | 940.5  | 893.5  | 860.9  | 804.1  | 740.9  | 737.9  | 757.3  | 927.2  | 777.3  |
| 45°   | 1162.6 | 1142.2 | 1067.1 | 977.1  | 935.4  | 890.2  | 819.3  | 809.8  | 822.1  | 1005.6 | 850.9  |
| 47.5° | 1320.5 | 1299.4 | 1193.1 | 1064.1 | 1014.5 | 971.9  | 911.2  | 894.0  | 898.1  | 1093.4 | 944.2  |
| 50°   | 1374.2 | 1363.9 | 1271.1 | 1139.9 | 1091.0 | 1074.8 | 1017.8 | 996.8  | 991.0  | 1195.0 | 1052.4 |
| 52.5° | 1355.6 | 1354.8 | 1293.0 | 1189.1 | 1161.2 | 1181.2 | 1151.9 | 1127.7 | 1106.4 | 1302.1 | 1162.4 |
| 55°   | 1325.7 | 1329.6 | 1301.9 | 1232.1 | 1231.1 | 1278.4 | 1335.4 | 1315.2 | 1253.6 | 1418.4 | 1257.3 |
| 57.5° | 1243.2 | 1260.0 | 1296.9 | 1313.5 | 1352.0 | 1400.4 | 1488.2 | 1500.1 | 1427.2 | 1507.4 | 1336.0 |
| 60°   | 1008.7 | 1045.5 | 1166.4 | 1325.2 | 1507.8 | 1628.3 | 1672.6 | 1682.7 | 1569.6 | 1581.5 | 1442.3 |
| 62.5° | 716.0  | 753.6  | 906.8  | 1175.6 | 1510.1 | 1927.7 | 1947.3 | 1907.4 | 1726.4 | 1691.2 | 1625.6 |
| 65°   | 380.0  | 409.1  | 534.3  | 848.6  | 1309.3 | 1997.3 | 2427.7 | 2308.8 | 2003.2 | 1907.1 | 1862.5 |
| 67.5° | 194.4  | 203.2  | 253.0  | 415.3  | 900.1  | 1774.0 | 2858.3 | 2942.1 | 2480.1 | 2121.2 | 1851.0 |
| 69°   | 172.0  | 177.2  | 210.2  | 300.2  | 576.4  | 1502.6 | 2879.3 | 3159.5 | 2729.9 | 2103.4 | 1682.1 |
| 70°   | 166.5  | 171.1  | 201.1  | 271.8  | 450.5  | 1260.1 | 2799.0 | 3140.4 | 2793.7 | 2035.4 | 1556.0 |
| 72.5° | 141.4  | 145.3  | 179.1  | 240.1  | 366.2  | 625.5  | 2273.7 | 2661.1 | 2506.9 | 1695.6 | 1126.3 |
| 75°   | 94.5   | 107.4  | 171.9  | 225.1  | 340.6  | 355.4  | 1499.0 | 1923.0 | 1786.4 | 1143.6 | 586.7  |
| 77.5° | 22.7   | 24.4   | 48.5   | 179.1  | 311.5  | 312.7  | 770.9  | 1195.4 | 975.1  | 407.6  | 138.7  |
| 80°   | 12.2   | 11.8   | 13.6   | 35.5   | 290.0  | 293.5  | 347.1  | 580.3  | 348.2  | 67.6   | 45.7   |
| 82.5° | 8.6    | 8.2    | 8.8    | 14.9   | 91.3   | 267.3  | 251.1  | 262.7  | 144.3  | 26.0   | 20.5   |
| 85°   | 3.1    | 3.0    | 4.8    | 13.5   | 28.6   | 153.7  | 258.0  | 216.6  | 116.9  | 11.9   | 15.0   |
| 87.5° | 1.1    | 0.9    | 1.9    | 7.3    | 8.8    | 65.5   | 159.2  | 163.7  | 46.0   | 7.2    | 7.1    |
| 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°    | 720.5  | 720.5 | 720.5 | 720.5 | 720.5 | 720.5 | 720.5 | 720.5 | 720.5 | 720.5 | 720.5 |
| 2.5°  | 714.1  | 704.4 | 686.6 | 668.2 | 651.3 | 631.0 | 620.8 | 610.8 | 606.6 | 605.0 | 597.7 |
| 5°    | 693.5  | 677.0 | 639.1 | 601.1 | 566.0 | 528.8 | 504.2 | 484.5 | 472.9 | 467.3 | 458.3 |
| 7.5°  | 667.0  | 640.1 | 582.6 | 523.9 | 469.3 | 415.5 | 375.5 | 344.8 | 323.7 | 313.6 | 304.3 |
| 10°   | 641.3  | 605.5 | 523.8 | 443.8 | 369.6 | 298.2 | 243.1 | 203.2 | 177.7 | 165.9 | 158.4 |
| 12.5° | 618.3  | 571.8 | 467.0 | 365.7 | 272.5 | 189.0 | 132.9 | 101.1 | 85.3  | 79.8  | 77.2  |
| 15°   | 597.8  | 540.9 | 413.3 | 291.5 | 184.5 | 108.0 | 72.7  | 61.8  | 59.3  | 59.3  | 59.0  |
| 17.5° | 578.4  | 510.5 | 361.4 | 221.8 | 115.8 | 66.1  | 55.3  | 53.8  | 53.8  | 54.5  | 54.5  |
| 20°   | 559.8  | 481.5 | 311.3 | 159.2 | 72.9  | 52.4  | 50.0  | 49.6  | 50.0  | 50.7  | 50.7  |
| 22.5° | 543.8  | 455.2 | 264.5 | 109.2 | 54.2  | 47.3  | 46.0  | 45.5  | 45.7  | 46.2  | 46.5  |
| 25°   | 531.9  | 433.0 | 220.4 | 74.0  | 46.6  | 43.0  | 41.7  | 40.9  | 40.2  | 40.2  | 40.5  |
| 27.5° | 524.4  | 414.2 | 177.7 | 53.8  | 41.9  | 39.1  | 36.9  | 35.7  | 34.3  | 33.5  | 33.8  |
| 30°   | 518.9  | 396.4 | 137.6 | 44.0  | 37.6  | 34.7  | 31.9  | 29.9  | 27.9  | 26.9  | 27.3  |
| 32.5° | 516.9  | 381.9 | 102.8 | 38.8  | 33.6  | 30.5  | 27.1  | 24.4  | 22.2  | 21.4  | 21.6  |
| 35°   | 522.4  | 370.5 | 75.3  | 35.1  | 30.5  | 26.6  | 22.7  | 19.7  | 18.0  | 17.5  | 17.7  |
| 37.5° | 536.8  | 364.4 | 56.4  | 31.9  | 27.7  | 23.3  | 19.0  | 16.1  | 15.0  | 15.0  | 15.2  |
| 40°   | 564.0  | 364.3 | 45.3  | 29.8  | 25.2  | 20.2  | 15.6  | 13.6  | 13.0  | 13.3  | 13.5  |
| 42.5° | 603.7  | 372.6 | 39.4  | 27.7  | 23.0  | 17.2  | 13.0  | 11.6  | 11.4  | 11.8  | 11.9  |
| 45°   | 658.1  | 387.7 | 36.3  | 26.0  | 20.7  | 14.4  | 10.9  | 10.0  | 10.0  | 10.5  | 10.7  |
| 47.5° | 724.6  | 410.0 | 33.6  | 24.3  | 18.3  | 12.0  | 9.4   | 8.8   | 8.9   | 9.4   | 9.5   |
| 50°   | 804.7  | 438.0 | 31.0  | 22.4  | 16.6  | 10.0  | 8.2   | 7.7   | 7.8   | 8.4   | 8.6   |
| 52.5° | 896.0  | 475.7 | 28.8  | 20.7  | 14.4  | 8.3   | 6.9   | 6.6   | 6.9   | 7.5   | 7.7   |
| 55°   | 974.3  | 509.5 | 26.2  | 19.2  | 11.6  | 6.9   | 5.6   | 5.6   | 6.0   | 6.7   | 6.9   |
| 57.5° | 1049.6 | 544.9 | 23.8  | 16.6  | 9.1   | 5.5   | 4.7   | 4.8   | 5.3   | 6.1   | 6.3   |
| 60°   | 1160.1 | 604.8 | 21.0  | 13.9  | 6.9   | 4.4   | 3.9   | 4.1   | 4.7   | 5.5   | 5.6   |
| 62.5° | 1347.8 | 696.1 | 18.2  | 11.6  | 5.3   | 3.5   | 3.1   | 3.5   | 4.2   | 5.2   | 5.3   |
| 65°   | 1517.2 | 733.2 | 14.9  | 9.7   | 4.1   | 2.7   | 2.7   | 3.1   | 4.1   | 5.0   | 5.2   |
| 67.5° | 1422.7 | 617.2 | 11.6  | 7.7   | 3.1   | 2.0   | 2.2   | 3.0   | 3.9   | 5.0   | 5.2   |
| 69°   | 1258.2 | 504.7 | 9.9   | 6.1   | 2.7   | 1.9   | 2.0   | 3.0   | 3.9   | 4.8   | 5.0   |
| 70°   | 1130.0 | 426.1 | 8.8   | 5.2   | 2.4   | 1.9   | 2.0   | 2.8   | 3.9   | 4.8   | 5.0   |
| 72.5° | 756.9  | 230.1 | 7.1   | 3.7   | 2.2   | 1.7   | 1.7   | 2.8   | 3.7   | 4.7   | 4.8   |
| 75°   | 325.3  | 63.6  | 5.6   | 2.7   | 1.9   | 1.6   | 1.6   | 2.7   | 3.6   | 4.5   | 4.8   |
| 77.5° | 59.5   | 16.1  | 4.5   | 2.4   | 1.9   | 1.6   | 1.4   | 2.5   | 3.5   | 4.4   | 4.5   |
| 80°   | 23.6   | 8.0   | 3.6   | 2.0   | 1.7   | 1.4   | 1.2   | 2.4   | 3.3   | 4.2   | 4.4   |
| 82.5° | 14.3   | 4.5   | 3.0   | 1.9   | 1.7   | 1.2   | 1.1   | 2.0   | 3.1   | 4.1   | 4.2   |
| 85°   | 11.6   | 3.1   | 2.4   | 1.9   | 1.6   | 1.2   | 0.9   | 1.9   | 2.8   | 3.9   | 4.1   |
| 87.5° | 5.6    | 2.2   | 2.2   | 1.7   | 1.6   | 1.2   | 0.9   | 1.7   | 2.7   | 3.7   | 3.9   |
| 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)