

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: P300311

Luminaire Tested: **GAA-AF-03-LED-U-AFL-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300311  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-03-LED-U-AFL-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

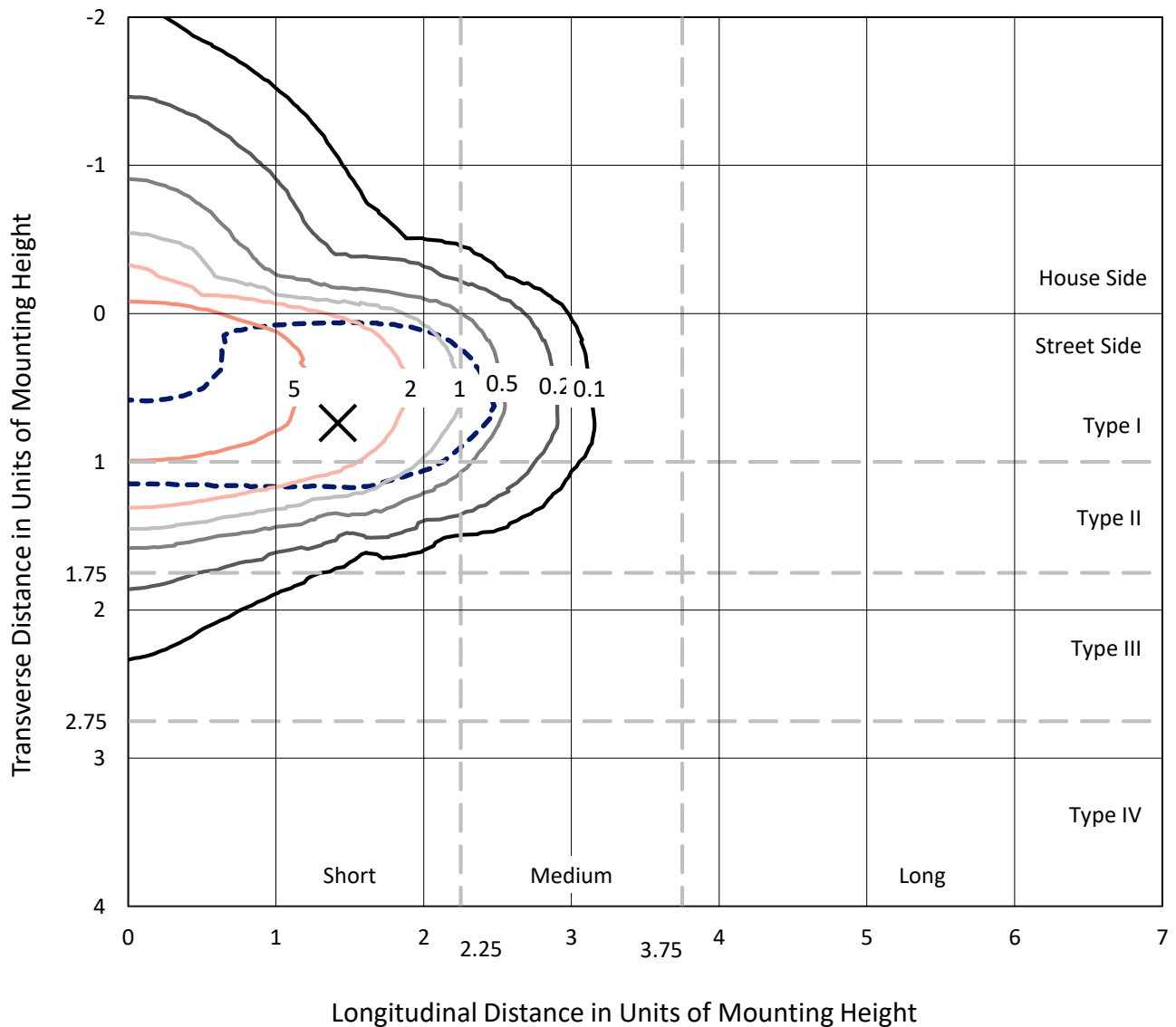
Lumens per Lamp: N/A  
Luminaire Lumens: 18579.6 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (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

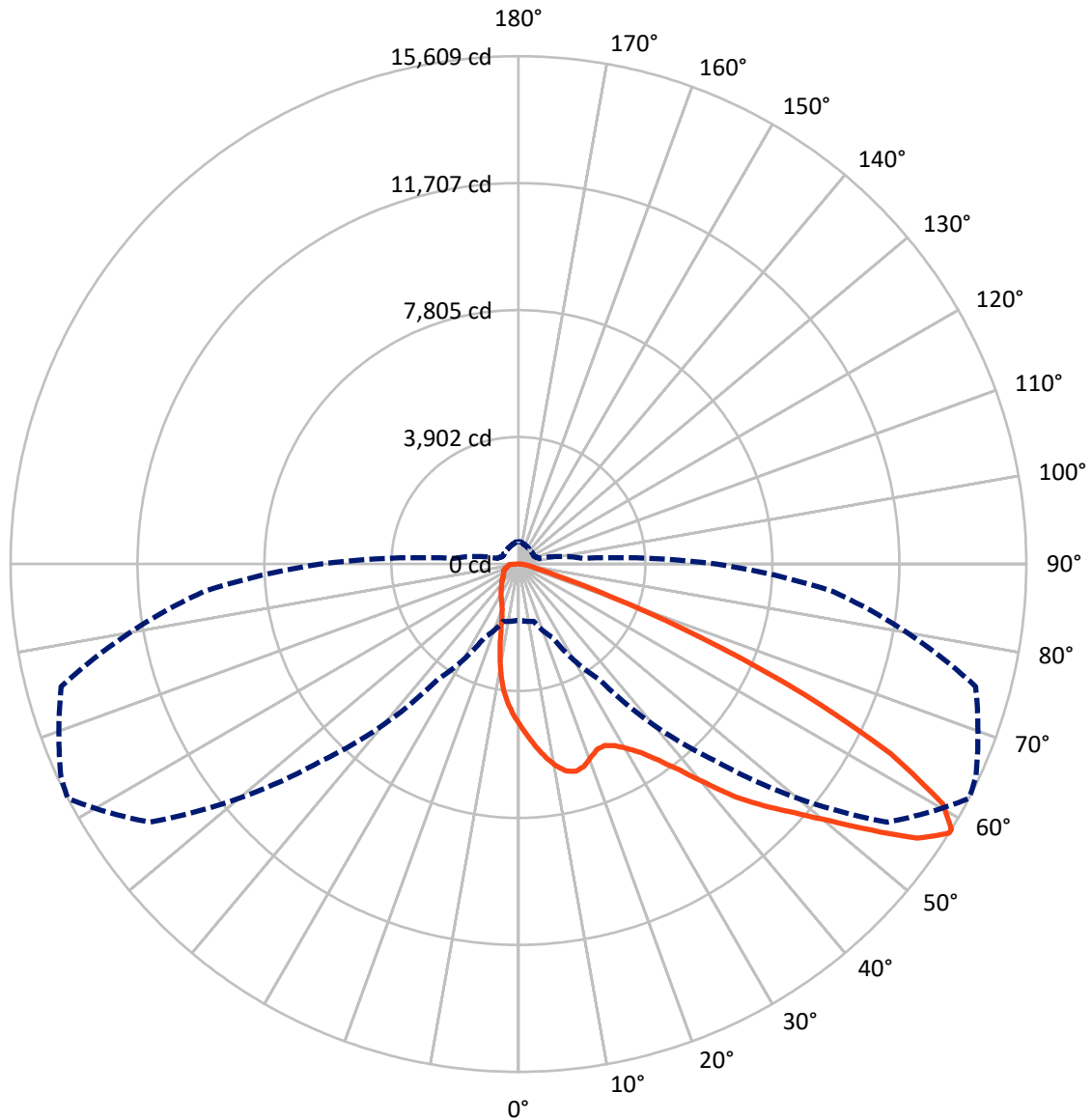
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2833.5   | 0.0    | 2833.5  |
|                    | % Fixture | 15.3     | 0.0    | 15.3    |
| <b>Street Side</b> | Lumens    | 15746.2  | 0.0    | 15746.2 |
|                    | % Fixture | 84.7     | 0.0    | 84.7    |
| <b>Total</b>       | Lumens    | 18579.6  | 0.0    | 18579.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 441.4   | 2.4       |
| 10°-20°   | 1128.3  | 6.1       |
| 20°-30°   | 1823.9  | 9.8       |
| 30°-40°   | 2895.4  | 15.6      |
| 40°-50°   | 4236.5  | 22.8      |
| 50°-60°   | 4431.1  | 23.8      |
| 60°-70°   | 2617.9  | 14.1      |
| 70°-80°   | 737.5   | 4.0       |
| 80°-90°   | 267.7   | 1.4       |
| 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°    | 18579.6 | 100.0     |
| 0°-180°   | 18579.6 | 100.0     |

**Coefficient of Utilization**



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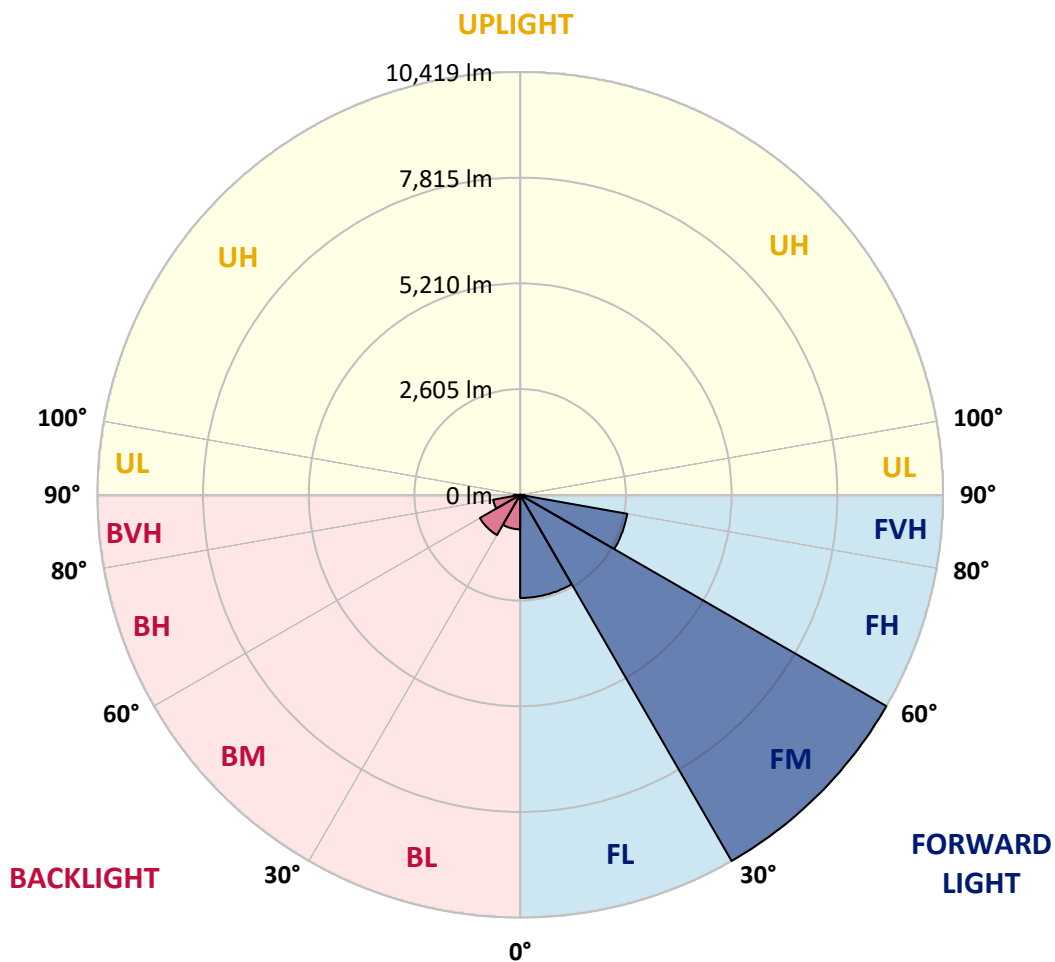
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2541.9  | 13.7      |                         |      |         |
| FM (30°-60°)   | 10419.3 | 56.1      |                         |      |         |
| FH (60°-80°)   | 2679.3  | 14.4      |                         |      | G2/5000 |
| FVH (80°-90°)  | 105.6   | 0.6       |                         |      | G2/225  |
| BL (0°-30°)    | 851.6   | 4.6       | B2/1000                 |      |         |
| BM (30°-60°)   | 1143.7  | 6.2       | B2/2500                 |      |         |
| BH (60°-80°)   | 676.1   | 3.6       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 162.1   | 0.9       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 45°     | 55°     | 62.5°   | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 4935.3 | 4935.3 | 4935.3 | 4935.3  | 4935.3  | 4935.3  | 4935.3  | 4935.3  | 4935.3  | 4935.3  | 4935.3 |
| 2.5°  | 5639.6 | 5594.1 | 5565.2 | 5539.8  | 5506.6  | 5435.7  | 5340.4  | 5280.0  | 5249.4  | 5145.3  | 5021.9 |
| 5°    | 6192.5 | 6152.3 | 6122.5 | 6088.4  | 6028.9  | 5917.8  | 5763.8  | 5641.3  | 5581.0  | 5372.7  | 5126.0 |
| 7.5°  | 6063.0 | 6079.7 | 6131.3 | 6221.4  | 6298.4  | 6283.5  | 6146.2  | 5990.4  | 5910.8  | 5621.2  | 5246.8 |
| 10°   | 5282.6 | 5311.5 | 5400.7 | 5611.6  | 5952.8  | 6302.8  | 6409.5  | 6301.9  | 6221.4  | 5867.1  | 5371.0 |
| 12.5° | 5126.0 | 5125.1 | 5132.1 | 5188.1  | 5391.1  | 5883.7  | 6418.2  | 6526.7  | 6478.6  | 6101.5  | 5497.9 |
| 15°   | 5189.9 | 5191.6 | 5186.4 | 5210.0  | 5273.0  | 5468.1  | 6150.5  | 6613.3  | 6647.5  | 6337.8  | 5629.1 |
| 17.5° | 5357.9 | 5353.5 | 5333.4 | 5333.4  | 5356.1  | 5432.2  | 5835.6  | 6532.9  | 6690.3  | 6546.9  | 5744.6 |
| 20°   | 5639.6 | 5619.5 | 5566.1 | 5517.1  | 5492.6  | 5533.7  | 5706.1  | 6347.4  | 6616.0  | 6729.7  | 5839.9 |
| 22.5° | 5980.8 | 5965.0 | 5878.4 | 5773.4  | 5688.6  | 5687.7  | 5772.6  | 6185.5  | 6487.4  | 6902.1  | 5920.4 |
| 25°   | 6421.7 | 6396.4 | 6267.8 | 6099.8  | 5951.1  | 5894.2  | 5917.8  | 6177.6  | 6417.4  | 7089.3  | 5992.2 |
| 27.5° | 6939.7 | 6893.3 | 6741.1 | 6498.7  | 6280.0  | 6165.4  | 6131.3  | 6320.3  | 6481.2  | 7321.1  | 6091.9 |
| 30°   | 7567.9 | 7514.5 | 7319.4 | 7003.6  | 6694.7  | 6506.6  | 6434.0  | 6573.1  | 6693.0  | 7603.7  | 6252.0 |
| 32.5° | 8282.7 | 8205.7 | 7979.9 | 7631.7  | 7225.8  | 6938.8  | 6820.7  | 6907.3  | 7002.7  | 7944.1  | 6452.4 |
| 35°   | 9270.4 | 9178.5 | 8852.2 | 8371.9  | 7913.4  | 7518.9  | 7329.9  | 7392.9  | 7485.6  | 8451.5  | 6742.0 |
| 37.5° | 9944.1 | 9903.0 | 9686.0 | 9234.5  | 8735.8  | 8281.8  | 7989.6  | 8026.3  | 8078.8  | 9085.8  | 7112.9 |
| 40°   | 9938.0 | 9954.6 | 9959.0 | 9963.3  | 9623.9  | 9189.0  | 8875.0  | 8836.5  | 8826.0  | 9782.2  | 7534.6 |
| 42.5° | 9440.1 | 9508.4 | 9728.9 | 10175.9 | 10382.4 | 10182.9 | 9895.1  | 9784.0  | 9728.9  | 10602.9 | 7981.7 |
| 45°   | 8678.1 | 8714.9 | 9127.8 | 10001.0 | 10770.9 | 11167.2 | 10949.3 | 10599.4 | 10499.6 | 11357.0 | 8352.6 |
| 47.5° | 8285.3 | 8325.5 | 8585.4 | 9537.3  | 10766.5 | 11962.5 | 12088.5 | 11421.8 | 11243.3 | 12013.2 | 8672.9 |
| 50°   | 7350.0 | 7434.0 | 7761.2 | 8730.6  | 10373.7 | 12328.2 | 13279.2 | 12401.7 | 12032.5 | 12651.9 | 8993.9 |
| 52.5° | 5632.6 | 5762.1 | 6128.7 | 7404.3  | 9377.1  | 12147.1 | 14232.0 | 13589.8 | 13068.3 | 13313.3 | 9269.5 |
| 55°   | 3553.0 | 3649.2 | 3957.2 | 5229.3  | 7501.4  | 11204.8 | 14593.3 | 14875.0 | 14411.3 | 13939.7 | 9508.4 |
| 57.5° | 1931.8 | 1974.6 | 2090.1 | 2887.2  | 4879.3  | 9121.7  | 14066.6 | 15606.4 | 15413.9 | 14471.7 | 9688.6 |
| 58°   | 1728.8 | 1757.7 | 1829.4 | 2502.2  | 4327.2  | 8552.1  | 13833.0 | 15609.0 | 15512.8 | 14549.5 | 9702.6 |
| 60°   | 1282.6 | 1267.7 | 1203.9 | 1427.8  | 2408.6  | 5908.2  | 12420.9 | 14984.4 | 15267.0 | 14644.9 | 9634.4 |
| 62.5° | 1126.9 | 1091.0 | 960.6  | 945.8   | 1171.5  | 2721.8  | 9504.0  | 12835.6 | 13503.2 | 14100.7 | 9219.7 |
| 65°   | 1058.6 | 1020.1 | 852.1  | 797.9   | 845.2   | 1151.4  | 5598.5  | 9626.5  | 10463.8 | 12450.7 | 8159.3 |
| 67.5° | 1007.9 | 958.0  | 783.0  | 708.7   | 712.2   | 761.2   | 2244.1  | 6063.0  | 7005.3  | 9453.3  | 6346.5 |
| 70°   | 958.9  | 904.6  | 724.4  | 638.7   | 618.6   | 601.9   | 892.4   | 3035.0  | 3889.8  | 5971.2  | 4046.4 |
| 72.5° | 906.4  | 853.0  | 672.8  | 583.6   | 544.2   | 489.1   | 582.7   | 1241.5  | 1734.0  | 2825.0  | 1835.5 |
| 75°   | 830.3  | 782.2  | 621.2  | 534.6   | 478.6   | 405.1   | 440.1   | 648.3   | 777.8   | 1125.1  | 884.5  |
| 77.5° | 736.7  | 697.3  | 563.4  | 494.3   | 424.3   | 329.0   | 338.6   | 449.7   | 498.7   | 643.9   | 525.8  |
| 80°   | 529.3  | 543.3  | 501.3  | 444.4   | 378.0   | 266.8   | 259.8   | 328.1   | 354.3   | 413.8   | 342.1  |
| 82.5° | 371.8  | 379.7  | 414.7  | 363.1   | 312.3   | 210.0   | 191.6   | 231.0   | 246.7   | 272.1   | 184.6  |
| 85°   | 256.3  | 247.6  | 284.3  | 252.8   | 225.7   | 140.0   | 131.2   | 156.6   | 166.2   | 168.9   | 95.4   |
| 87.5° | 154.0  | 154.0  | 164.5  | 135.6   | 121.6   | 72.6    | 70.9    | 89.2    | 95.4    | 91.0    | 52.5   |
| 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°    | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 | 4935.3 |
| 2.5°  | 4948.4 | 4886.3 | 4754.2 | 4648.3 | 4514.5 | 4375.4 | 4297.5 | 4214.4 | 4157.5 | 4116.4 | 4182.0 |
| 5°    | 4986.0 | 4859.2 | 4586.2 | 4327.2 | 4041.2 | 3743.7 | 3518.0 | 3308.0 | 3161.9 | 3070.9 | 3156.6 |
| 7.5°  | 5045.5 | 4850.4 | 4415.6 | 3972.9 | 3459.3 | 2964.2 | 2521.5 | 2244.1 | 2082.3 | 2002.6 | 2052.5 |
| 10°   | 5113.8 | 4836.4 | 4215.3 | 3492.6 | 2757.7 | 2133.9 | 1803.2 | 1691.2 | 1654.4 | 1639.6 | 1646.6 |
| 12.5° | 5170.6 | 4806.7 | 3969.4 | 2911.7 | 2070.9 | 1685.1 | 1589.7 | 1587.1 | 1594.9 | 1596.7 | 1599.3 |
| 15°   | 5210.9 | 4762.9 | 3604.6 | 2306.2 | 1656.2 | 1535.4 | 1530.2 | 1545.9 | 1560.8 | 1566.9 | 1570.4 |
| 17.5° | 5238.0 | 4672.8 | 3192.5 | 1823.3 | 1483.8 | 1462.8 | 1475.1 | 1495.2 | 1510.9 | 1515.3 | 1518.8 |
| 20°   | 5235.4 | 4540.7 | 2701.7 | 1520.6 | 1390.2 | 1390.2 | 1411.2 | 1427.0 | 1427.8 | 1422.6 | 1425.2 |
| 22.5° | 5208.3 | 4359.6 | 2225.7 | 1359.6 | 1307.1 | 1322.0 | 1343.0 | 1328.1 | 1266.9 | 1226.6 | 1229.2 |
| 25°   | 5162.8 | 4143.5 | 1818.0 | 1257.2 | 1230.1 | 1256.4 | 1250.2 | 1138.2 | 1050.8 | 1011.4 | 1011.4 |
| 27.5° | 5122.5 | 3888.0 | 1504.8 | 1168.0 | 1153.1 | 1185.5 | 1077.0 | 975.5  | 938.8  | 920.4  | 914.3  |
| 30°   | 5093.7 | 3612.5 | 1295.7 | 1082.2 | 1080.5 | 1056.9 | 934.4  | 906.4  | 900.3  | 885.4  | 880.1  |
| 32.5° | 5100.7 | 3333.4 | 1161.9 | 1007.0 | 1013.1 | 904.6  | 866.1  | 872.3  | 867.0  | 851.3  | 844.3  |
| 35°   | 5158.4 | 3068.3 | 1074.4 | 938.8  | 920.4  | 817.2  | 825.9  | 837.3  | 835.5  | 813.7  | 806.7  |
| 37.5° | 5261.6 | 2817.2 | 1016.6 | 881.9  | 803.2  | 773.4  | 787.4  | 804.9  | 800.5  | 785.7  | 780.4  |
| 40°   | 5370.1 | 2580.9 | 969.4  | 837.3  | 734.0  | 743.7  | 755.9  | 765.5  | 769.9  | 774.3  | 770.8  |
| 42.5° | 5476.0 | 2334.2 | 911.6  | 791.8  | 705.2  | 715.7  | 720.9  | 730.5  | 754.2  | 770.8  | 769.9  |
| 45°   | 5539.0 | 2102.4 | 852.1  | 727.0  | 682.4  | 688.5  | 685.0  | 704.3  | 733.2  | 760.3  | 761.2  |
| 47.5° | 5609.0 | 1922.1 | 804.9  | 667.5  | 660.5  | 664.9  | 654.4  | 673.7  | 699.9  | 733.2  | 736.7  |
| 50°   | 5693.8 | 1814.5 | 767.3  | 620.3  | 630.8  | 630.8  | 628.2  | 645.7  | 682.4  | 720.9  | 727.9  |
| 52.5° | 5790.1 | 1793.5 | 735.8  | 586.2  | 601.1  | 600.2  | 602.8  | 629.1  | 669.3  | 706.9  | 713.0  |
| 55°   | 5907.3 | 1850.4 | 701.7  | 560.8  | 572.2  | 575.7  | 584.4  | 614.2  | 648.3  | 691.2  | 693.8  |
| 57.5° | 6043.8 | 1965.9 | 674.5  | 540.7  | 545.9  | 557.3  | 571.3  | 598.4  | 635.2  | 682.4  | 685.0  |
| 58°   | 6066.5 | 1990.4 | 670.2  | 538.9  | 540.7  | 553.8  | 569.6  | 595.8  | 632.6  | 684.2  | 686.8  |
| 60°   | 6067.4 | 2071.8 | 660.5  | 531.1  | 520.6  | 542.4  | 559.9  | 586.2  | 628.2  | 690.3  | 696.4  |
| 62.5° | 5852.2 | 2070.9 | 653.5  | 519.7  | 499.6  | 526.7  | 546.8  | 577.4  | 623.8  | 705.2  | 717.4  |
| 65°   | 5153.1 | 1881.9 | 620.3  | 502.2  | 482.9  | 512.7  | 535.4  | 571.3  | 636.1  | 769.9  | 777.8  |
| 67.5° | 4030.7 | 1542.4 | 558.2  | 477.7  | 461.1  | 498.7  | 528.4  | 570.4  | 649.2  | 784.8  | 790.0  |
| 70°   | 2664.9 | 1154.0 | 489.9  | 449.7  | 438.3  | 482.1  | 531.9  | 600.2  | 634.3  | 753.3  | 739.3  |
| 72.5° | 1383.2 | 810.2  | 434.8  | 414.7  | 412.1  | 467.2  | 582.7  | 596.7  | 619.4  | 708.7  | 691.2  |
| 75°   | 726.2  | 562.6  | 386.7  | 376.2  | 380.6  | 463.7  | 687.7  | 580.9  | 600.2  | 678.0  | 711.3  |
| 77.5° | 444.4  | 454.1  | 345.6  | 341.2  | 350.0  | 453.2  | 686.8  | 560.8  | 572.2  | 623.8  | 660.5  |
| 80°   | 297.5  | 368.3  | 314.1  | 315.0  | 321.1  | 414.7  | 616.8  | 529.3  | 538.1  | 589.7  | 627.3  |
| 82.5° | 188.1  | 217.8  | 285.2  | 300.1  | 292.2  | 342.1  | 524.1  | 482.1  | 494.3  | 674.5  | 713.0  |
| 85°   | 95.4   | 136.5  | 247.6  | 288.7  | 263.3  | 239.7  | 425.2  | 422.6  | 428.7  | 486.4  | 508.3  |
| 87.5° | 43.7   | 75.2   | 193.4  | 252.0  | 198.6  | 149.6  | 308.8  | 313.2  | 337.7  | 345.6  | 345.6  |
| 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)