

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: McGRAW-EDISON

Report Number: P190981

Luminaire Tested: **GLEON-AF-03-LED-E1-AFL-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P190981  
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: MCGRAW-EDISON  
Catalog Number: GLEON-AF-03-LED-E1-AFL-1200  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20921.4 lumens  
Efficiency: N/A  
Efficacy: 109.5 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

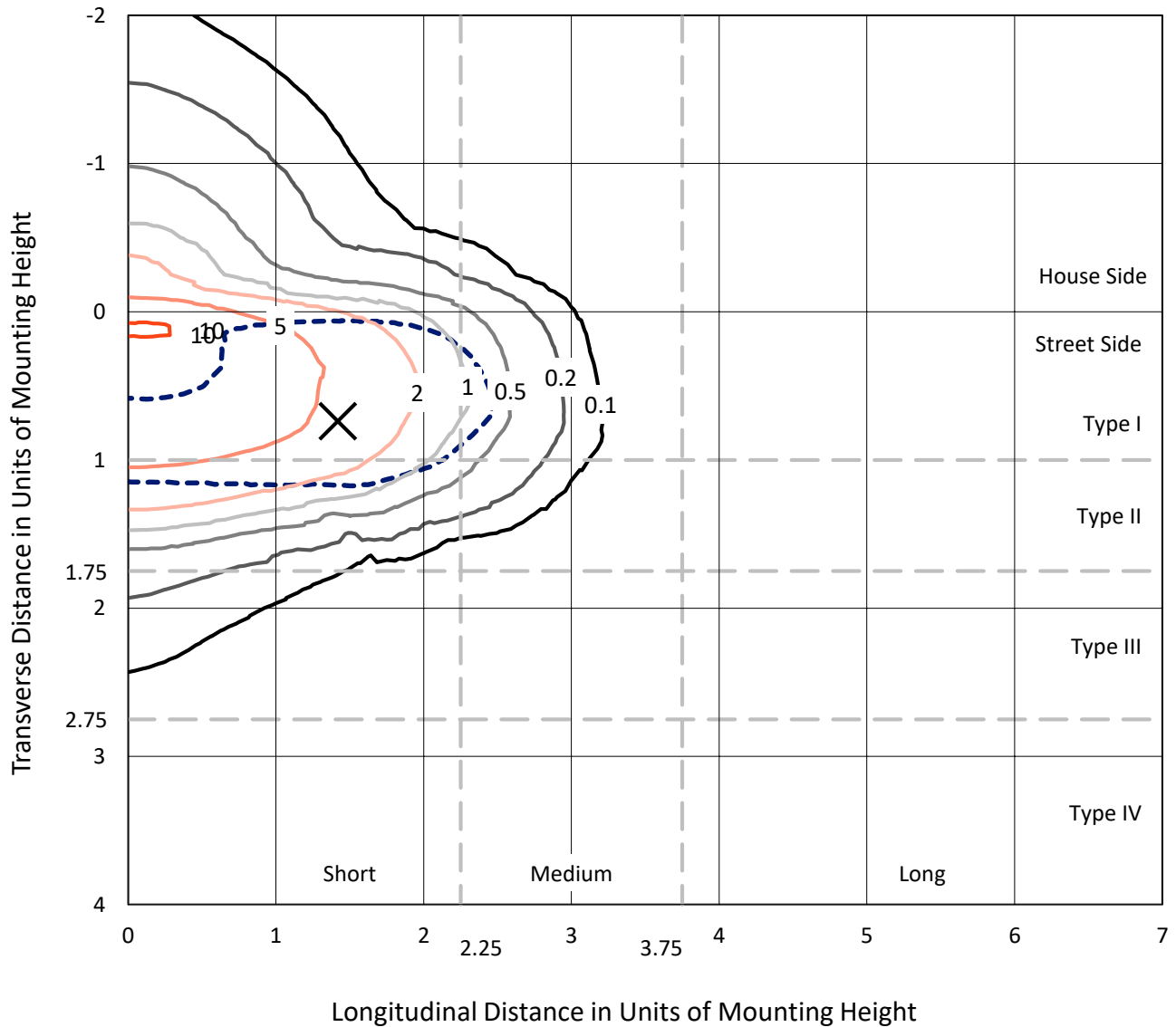
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

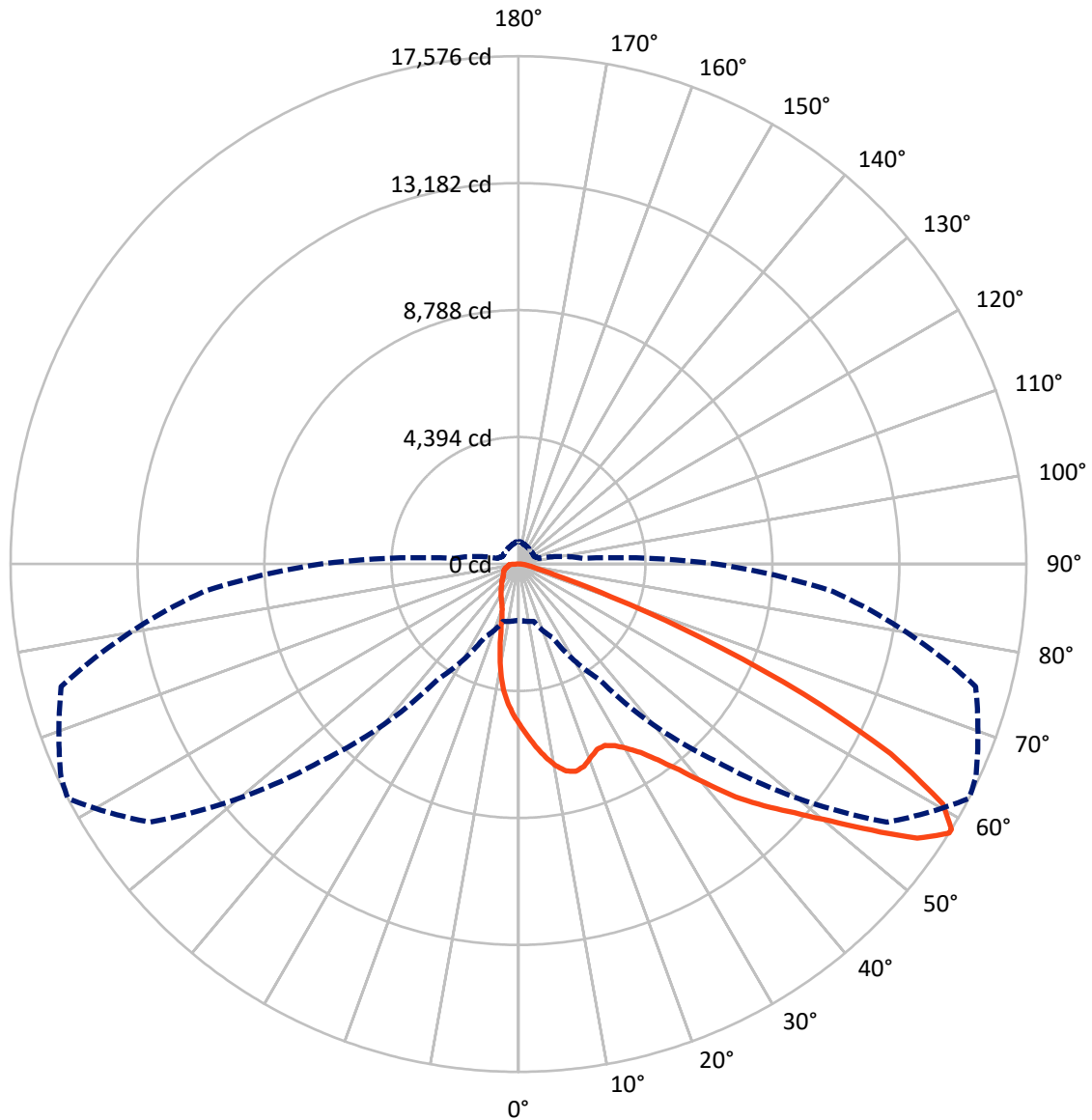
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 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    | 3190.6   | 0.0    | 3190.6  |
|                    | % Fixture | 15.3     | 0.0    | 15.3    |
| <b>Street Side</b> | Lumens    | 17730.8  | 0.0    | 17730.8 |
|                    | % Fixture | 84.7     | 0.0    | 84.7    |
| <b>Total</b>       | Lumens    | 20921.4  | 0.0    | 20921.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 497.0   | 2.4       |
| 10°-20°   | 1270.5  | 6.1       |
| 20°-30°   | 2053.7  | 9.8       |
| 30°-40°   | 3260.3  | 15.6      |
| 40°-50°   | 4770.5  | 22.8      |
| 50°-60°   | 4989.6  | 23.8      |
| 60°-70°   | 2947.8  | 14.1      |
| 70°-80°   | 830.4   | 4.0       |
| 80°-90°   | 301.5   | 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°    | 20921.4 | 100.0     |
| 0°-180°   | 20921.4 | 100.0     |



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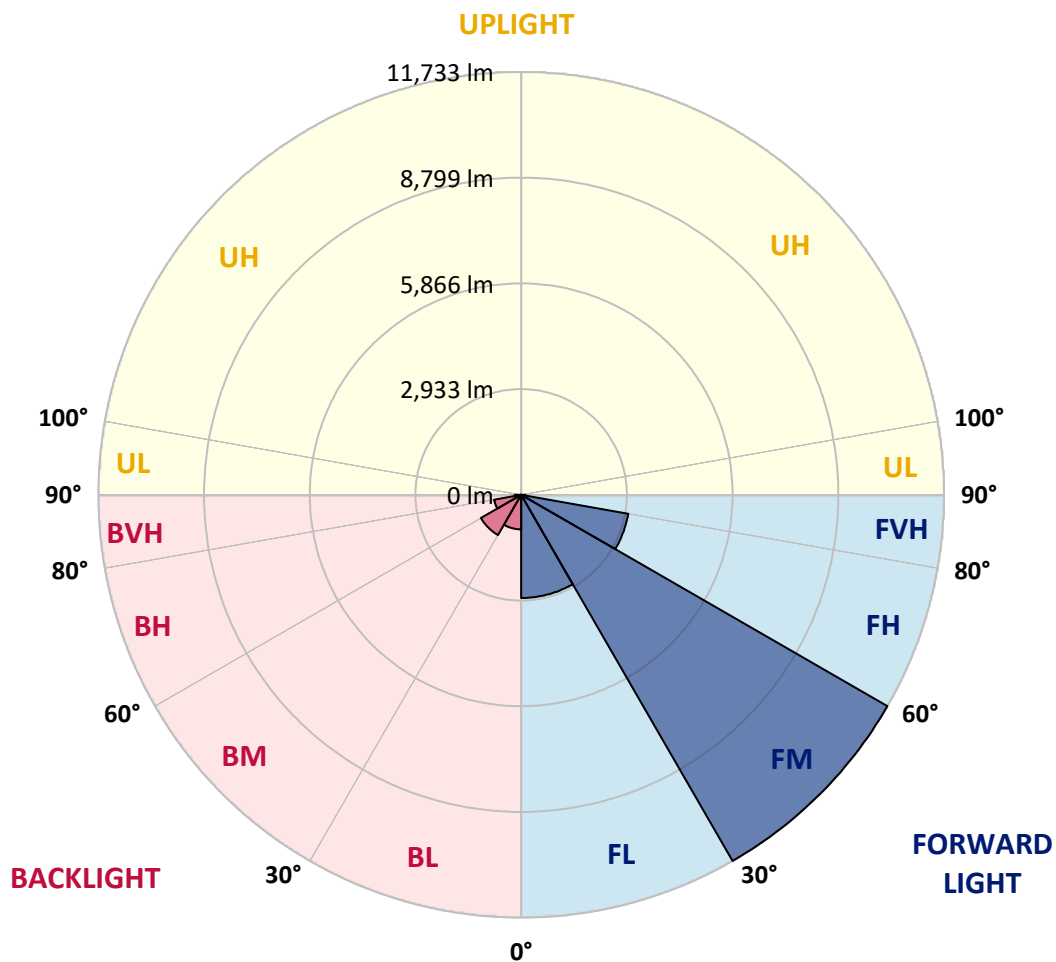
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2862.3  | 13.7      |                         |      |         |
| FM   | (30°-60°)   | 11732.6 | 56.1      |                         |      |         |
| FH   | (60°-80°)   | 3016.9  | 14.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 118.9   | 0.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 958.9   | 4.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1287.8  | 6.2       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 761.3   | 3.6       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 182.6   | 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°    | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  | 5557.4  |
| 2.5°  | 6350.4  | 6299.1  | 6266.7  | 6238.1  | 6200.6  | 6120.8  | 6013.5  | 5945.5  | 5911.0  | 5793.8  | 5654.9  |
| 5°    | 6973.0  | 6927.7  | 6894.2  | 6855.8  | 6788.8  | 6663.7  | 6490.3  | 6352.4  | 6284.4  | 6049.9  | 5772.1  |
| 7.5°  | 6827.2  | 6845.9  | 6904.1  | 7005.6  | 7092.2  | 7075.4  | 6920.8  | 6745.4  | 6655.8  | 6329.7  | 5908.1  |
| 10°   | 5948.5  | 5981.0  | 6081.4  | 6318.9  | 6703.1  | 7097.1  | 7217.3  | 7096.2  | 7005.6  | 6606.5  | 6048.0  |
| 12.5° | 5772.1  | 5771.1  | 5779.0  | 5842.1  | 6070.6  | 6625.2  | 7227.2  | 7349.4  | 7295.2  | 6870.5  | 6190.8  |
| 15°   | 5844.0  | 5846.0  | 5840.1  | 5866.7  | 5937.6  | 6157.3  | 6925.8  | 7446.9  | 7485.3  | 7136.6  | 6338.6  |
| 17.5° | 6033.2  | 6028.2  | 6005.6  | 6005.6  | 6031.2  | 6116.9  | 6571.1  | 7356.2  | 7533.6  | 7372.0  | 6468.6  |
| 20°   | 6350.4  | 6327.8  | 6267.6  | 6212.5  | 6184.9  | 6231.2  | 6425.3  | 7147.4  | 7449.8  | 7577.9  | 6576.0  |
| 22.5° | 6734.6  | 6716.9  | 6619.3  | 6501.2  | 6405.6  | 6404.6  | 6500.1  | 6965.2  | 7305.0  | 7772.0  | 6666.7  |
| 25°   | 7231.1  | 7202.6  | 7057.7  | 6868.6  | 6701.1  | 6637.1  | 6663.7  | 6956.3  | 7226.2  | 7982.8  | 6747.4  |
| 27.5° | 7814.3  | 7762.2  | 7590.7  | 7317.9  | 7071.6  | 6942.5  | 6904.1  | 7116.9  | 7298.1  | 8243.9  | 6859.7  |
| 30°   | 8521.7  | 8461.6  | 8241.9  | 7886.2  | 7538.5  | 7326.7  | 7244.9  | 7401.6  | 7536.6  | 8562.1  | 7040.0  |
| 32.5° | 9326.5  | 9239.9  | 8985.7  | 8593.6  | 8136.6  | 7813.4  | 7680.4  | 7777.9  | 7885.3  | 8945.3  | 7265.6  |
| 35°   | 10438.9 | 10335.4 | 9967.9  | 9427.1  | 8910.8  | 8466.6  | 8253.8  | 8324.7  | 8429.1  | 9516.7  | 7591.7  |
| 37.5° | 11197.4 | 11151.1 | 10906.8 | 10398.5 | 9836.9  | 9325.6  | 8996.5  | 9038.0  | 9097.1  | 10230.9 | 8009.4  |
| 40°   | 11190.6 | 11209.3 | 11214.2 | 11219.1 | 10836.8 | 10347.2 | 9993.5  | 9950.2  | 9938.4  | 11015.1 | 8484.3  |
| 42.5° | 10630.0 | 10706.8 | 10955.1 | 11458.5 | 11691.0 | 11466.4 | 11142.3 | 11017.2 | 10955.1 | 11939.3 | 8987.7  |
| 45°   | 9771.9  | 9813.3  | 10278.3 | 11261.5 | 12128.4 | 12574.7 | 12329.4 | 11935.3 | 11823.1 | 12788.5 | 9405.4  |
| 47.5° | 9329.5  | 9374.8  | 9667.5  | 10739.3 | 12123.5 | 13470.2 | 13612.1 | 12861.4 | 12660.4 | 13527.4 | 9766.0  |
| 50°   | 8276.4  | 8371.0  | 8739.5  | 9831.0  | 11681.2 | 13882.1 | 14952.9 | 13964.8 | 13549.1 | 14246.5 | 10127.5 |
| 52.5° | 6342.5  | 6488.4  | 6901.1  | 8337.5  | 10559.0 | 13678.1 | 16025.8 | 15302.6 | 14715.5 | 14991.3 | 10437.9 |
| 55°   | 4000.8  | 4109.1  | 4455.9  | 5888.3  | 8446.8  | 12617.1 | 16432.6 | 16749.9 | 16227.7 | 15696.7 | 10706.8 |
| 57.5° | 2175.3  | 2223.5  | 2353.6  | 3251.0  | 5494.3  | 10271.3 | 15839.6 | 17573.5 | 17356.7 | 16295.7 | 10909.8 |
| 58°   | 1946.7  | 1979.2  | 2060.0  | 2817.6  | 4872.6  | 9630.1  | 15576.5 | 17576.4 | 17468.0 | 16383.4 | 10925.5 |
| 60°   | 1444.3  | 1427.5  | 1355.6  | 1607.8  | 2712.1  | 6652.9  | 13986.5 | 16873.0 | 17191.2 | 16490.8 | 10848.7 |
| 62.5° | 1268.9  | 1228.5  | 1081.7  | 1065.0  | 1319.1  | 3064.9  | 10701.9 | 14453.4 | 15205.1 | 15877.9 | 10381.7 |
| 65°   | 1192.0  | 1148.7  | 959.5   | 898.5   | 951.7   | 1296.5  | 6304.1  | 10839.8 | 11782.7 | 14020.0 | 9187.7  |
| 67.5° | 1135.0  | 1078.8  | 881.7   | 798.0   | 801.9   | 857.1   | 2527.0  | 6827.2  | 7888.3  | 10644.7 | 7146.4  |
| 70°   | 1079.7  | 1018.7  | 815.7   | 719.1   | 696.5   | 677.8   | 1004.8  | 3417.6  | 4380.1  | 6723.8  | 4556.4  |
| 72.5° | 1020.6  | 960.6   | 757.6   | 657.1   | 612.7   | 550.8   | 656.1   | 1398.0  | 1952.6  | 3181.1  | 2066.9  |
| 75°   | 934.9   | 880.8   | 699.5   | 601.9   | 538.9   | 456.1   | 495.5   | 730.0   | 875.9   | 1266.9  | 996.0   |
| 77.5° | 829.5   | 785.2   | 634.4   | 556.6   | 477.8   | 370.4   | 381.3   | 506.4   | 561.5   | 725.1   | 592.1   |
| 80°   | 596.1   | 611.8   | 564.5   | 500.4   | 425.5   | 300.4   | 292.6   | 369.4   | 399.0   | 466.0   | 385.2   |
| 82.5° | 418.7   | 427.6   | 467.0   | 408.9   | 351.7   | 236.4   | 215.7   | 260.0   | 277.8   | 306.4   | 207.9   |
| 85°   | 288.7   | 278.8   | 320.2   | 284.7   | 254.2   | 157.6   | 147.8   | 176.4   | 187.2   | 190.2   | 107.4   |
| 87.5° | 173.4   | 173.4   | 185.3   | 152.7   | 137.0   | 81.7    | 79.8    | 100.5   | 107.4   | 102.5   | 59.1    |
| 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°    | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 | 5557.4 |
| 2.5°  | 5572.1 | 5502.1 | 5353.4 | 5234.2 | 5083.5 | 4926.8 | 4839.2 | 4745.6 | 4681.5 | 4635.2 | 4709.2 |
| 5°    | 5614.5 | 5471.7 | 5164.3 | 4872.6 | 4550.5 | 4215.6 | 3961.4 | 3725.0 | 3560.4 | 3458.0 | 3554.4 |
| 7.5°  | 5681.5 | 5461.7 | 4972.2 | 4473.7 | 3895.4 | 3337.8 | 2839.3 | 2527.0 | 2344.7 | 2255.1 | 2311.3 |
| 10°   | 5758.3 | 5446.0 | 4746.6 | 3932.8 | 3105.3 | 2402.8 | 2030.5 | 1904.3 | 1863.0 | 1846.2 | 1854.1 |
| 12.5° | 5822.3 | 5412.5 | 4469.7 | 3278.7 | 2331.9 | 1897.5 | 1790.1 | 1787.1 | 1796.0 | 1797.9 | 1800.9 |
| 15°   | 5867.6 | 5363.2 | 4058.9 | 2596.9 | 1864.9 | 1729.0 | 1723.1 | 1740.8 | 1757.5 | 1764.5 | 1768.4 |
| 17.5° | 5898.2 | 5261.8 | 3594.9 | 2053.1 | 1670.9 | 1647.2 | 1661.0 | 1683.7 | 1701.4 | 1706.3 | 1710.3 |
| 20°   | 5895.3 | 5113.0 | 3042.2 | 1712.2 | 1565.4 | 1565.4 | 1589.1 | 1606.9 | 1607.8 | 1601.8 | 1604.8 |
| 22.5° | 5864.7 | 4909.1 | 2506.2 | 1530.9 | 1471.8 | 1488.6 | 1512.2 | 1495.5 | 1426.5 | 1381.2 | 1384.2 |
| 25°   | 5813.5 | 4665.8 | 2047.2 | 1415.7 | 1385.2 | 1414.7 | 1407.8 | 1281.7 | 1183.1 | 1138.9 | 1138.9 |
| 27.5° | 5768.2 | 4378.1 | 1694.5 | 1315.2 | 1298.4 | 1335.0 | 1212.7 | 1098.4 | 1057.1 | 1036.4 | 1029.5 |
| 30°   | 5735.7 | 4067.8 | 1459.0 | 1218.6 | 1216.7 | 1190.1 | 1052.2 | 1020.6 | 1013.7 | 997.0  | 991.0  |
| 32.5° | 5743.6 | 3753.5 | 1308.4 | 1133.9 | 1140.8 | 1018.7 | 975.3  | 982.2  | 976.3  | 958.6  | 950.7  |
| 35°   | 5808.5 | 3455.0 | 1209.7 | 1057.1 | 1036.4 | 920.1  | 930.0  | 942.9  | 940.8  | 916.3  | 908.3  |
| 37.5° | 5924.8 | 3172.3 | 1144.8 | 993.1  | 904.4  | 870.9  | 886.7  | 906.3  | 901.4  | 884.6  | 878.8  |
| 40°   | 6047.0 | 2906.2 | 1091.6 | 942.9  | 826.5  | 837.4  | 851.2  | 862.0  | 867.0  | 871.9  | 868.0  |
| 42.5° | 6166.1 | 2628.5 | 1026.5 | 891.6  | 794.0  | 805.9  | 811.8  | 822.7  | 849.3  | 868.0  | 867.0  |
| 45°   | 6237.1 | 2367.3 | 959.5  | 818.7  | 768.4  | 775.3  | 771.4  | 793.1  | 825.5  | 856.1  | 857.1  |
| 47.5° | 6315.9 | 2164.5 | 906.3  | 751.7  | 743.8  | 748.7  | 736.9  | 758.6  | 788.2  | 825.5  | 829.5  |
| 50°   | 6411.4 | 2043.2 | 864.0  | 698.5  | 710.3  | 710.3  | 707.4  | 727.0  | 768.4  | 811.8  | 819.7  |
| 52.5° | 6519.9 | 2019.6 | 828.5  | 660.1  | 676.8  | 675.9  | 678.8  | 708.3  | 753.6  | 796.1  | 802.9  |
| 55°   | 6651.8 | 2083.6 | 790.1  | 631.5  | 644.3  | 648.2  | 658.1  | 691.6  | 730.0  | 778.3  | 781.2  |
| 57.5° | 6805.6 | 2213.7 | 759.5  | 608.9  | 614.8  | 627.6  | 643.3  | 673.8  | 715.2  | 768.4  | 771.4  |
| 58°   | 6831.2 | 2241.3 | 754.6  | 606.8  | 608.9  | 623.6  | 641.4  | 670.9  | 712.3  | 770.4  | 773.4  |
| 60°   | 6832.2 | 2332.8 | 743.8  | 598.0  | 586.2  | 610.8  | 630.5  | 660.1  | 707.4  | 777.3  | 784.2  |
| 62.5° | 6589.8 | 2331.9 | 735.9  | 585.2  | 562.5  | 593.1  | 615.7  | 650.2  | 702.5  | 794.0  | 807.8  |
| 65°   | 5802.7 | 2119.1 | 698.5  | 565.5  | 543.8  | 577.4  | 602.9  | 643.3  | 716.2  | 867.0  | 875.9  |
| 67.5° | 4538.6 | 1736.9 | 628.5  | 537.9  | 519.1  | 561.5  | 595.1  | 642.3  | 731.0  | 883.7  | 889.6  |
| 70°   | 3000.8 | 1299.5 | 551.7  | 506.4  | 493.6  | 542.8  | 598.9  | 675.9  | 714.2  | 848.2  | 832.5  |
| 72.5° | 1557.5 | 912.3  | 489.6  | 467.0  | 464.0  | 526.1  | 656.1  | 671.9  | 697.6  | 798.0  | 778.3  |
| 75°   | 817.6  | 633.5  | 435.5  | 423.6  | 428.5  | 522.1  | 774.4  | 654.2  | 675.9  | 763.5  | 801.0  |
| 77.5° | 500.4  | 511.3  | 389.1  | 384.2  | 394.0  | 510.4  | 773.4  | 631.5  | 644.3  | 702.5  | 743.8  |
| 80°   | 334.9  | 414.8  | 353.6  | 354.7  | 361.5  | 467.0  | 694.6  | 596.1  | 605.9  | 664.0  | 706.3  |
| 82.5° | 211.9  | 245.3  | 321.2  | 337.9  | 329.1  | 385.2  | 590.1  | 542.8  | 556.6  | 759.5  | 802.9  |
| 85°   | 107.4  | 153.6  | 278.8  | 325.1  | 296.6  | 270.0  | 478.8  | 475.9  | 482.7  | 547.8  | 572.3  |
| 87.5° | 49.3   | 84.7   | 217.7  | 283.8  | 223.6  | 168.5  | 347.8  | 352.7  | 380.2  | 389.1  | 389.1  |
| 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)