

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: P194311

Luminaire Tested: **GLEON-AF-03-LED-E1-AFL-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194311  
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-7060  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18644 lumens  
Efficiency: N/A  
Efficacy: 112.3 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: 25 FT

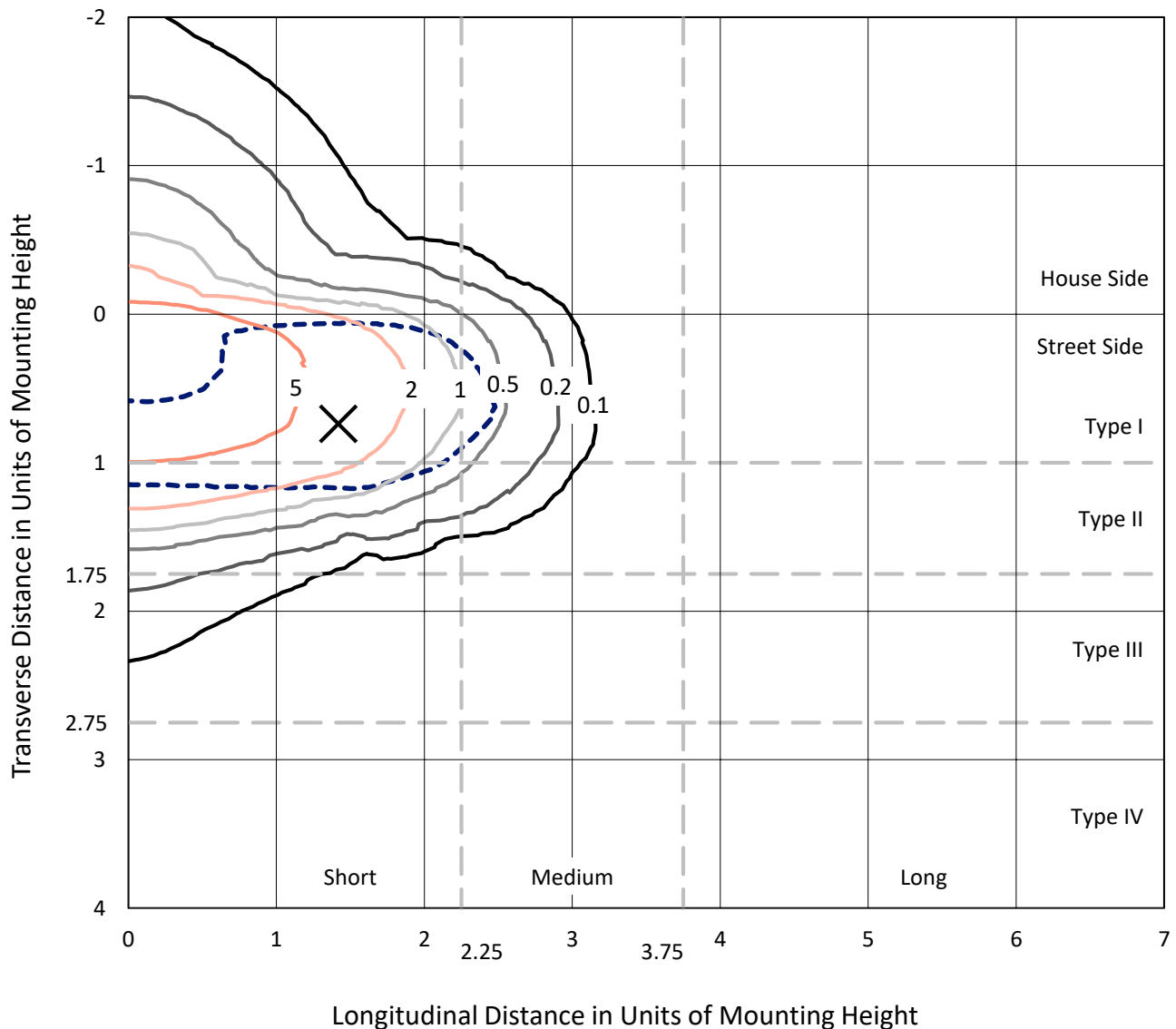


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

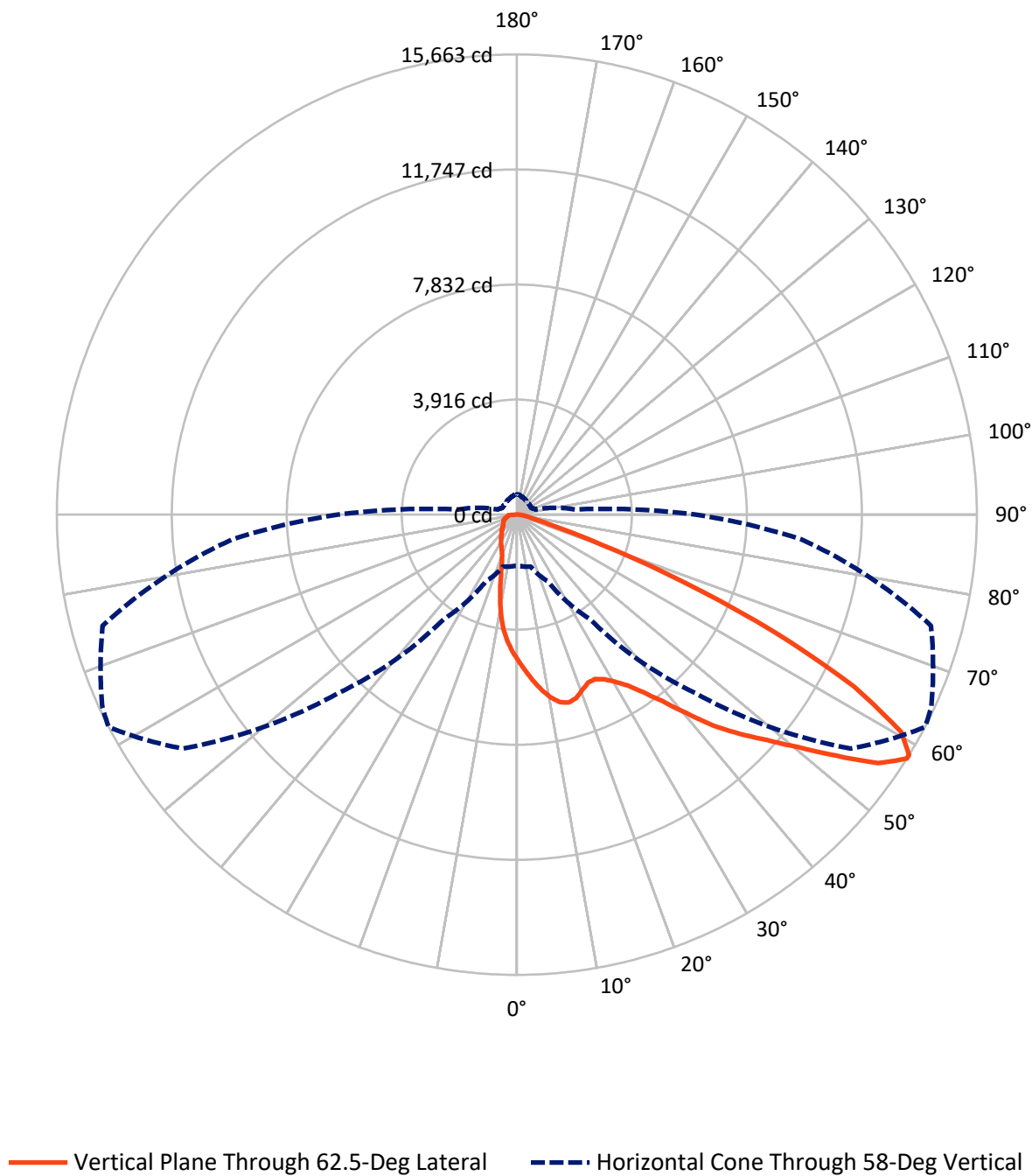


Based on 25 foot mounting height. Maximum calculated value = 9.7 fc  
Type II - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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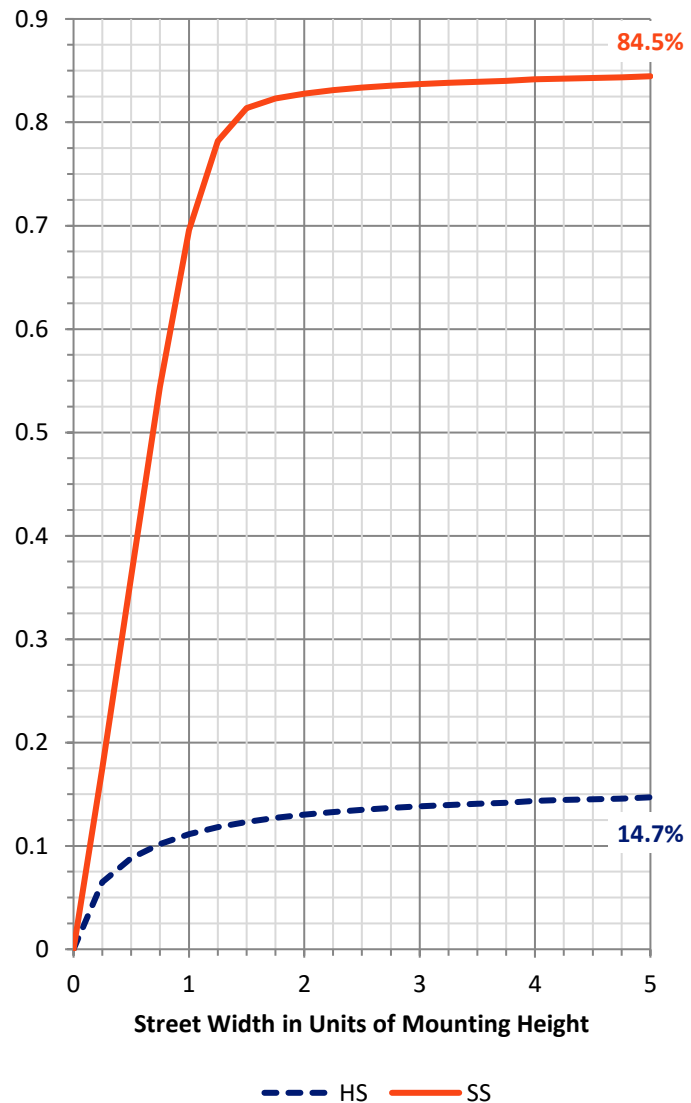
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2843.3   | 0.0    | 2843.3  |
|                    | % Fixture | 15.3     | 0.0    | 15.3    |
| <b>Street Side</b> | Lumens    | 15800.7  | 0.0    | 15800.7 |
|                    | % Fixture | 84.7     | 0.0    | 84.7    |
| <b>Total</b>       | Lumens    | 18644.0  | 0.0    | 18644.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 442.9   | 2.4       |
| 10°-20°   | 1132.2  | 6.1       |
| 20°-30°   | 1830.2  | 9.8       |
| 30°-40°   | 2905.4  | 15.6      |
| 40°-50°   | 4251.2  | 22.8      |
| 50°-60°   | 4446.4  | 23.8      |
| 60°-70°   | 2627.0  | 14.1      |
| 70°-80°   | 740.0   | 4.0       |
| 80°-90°   | 268.7   | 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°    | 18644.0 | 100.0     |
| 0°-180°   | 18644.0 | 100.0     |

**Coefficient of Utilization**



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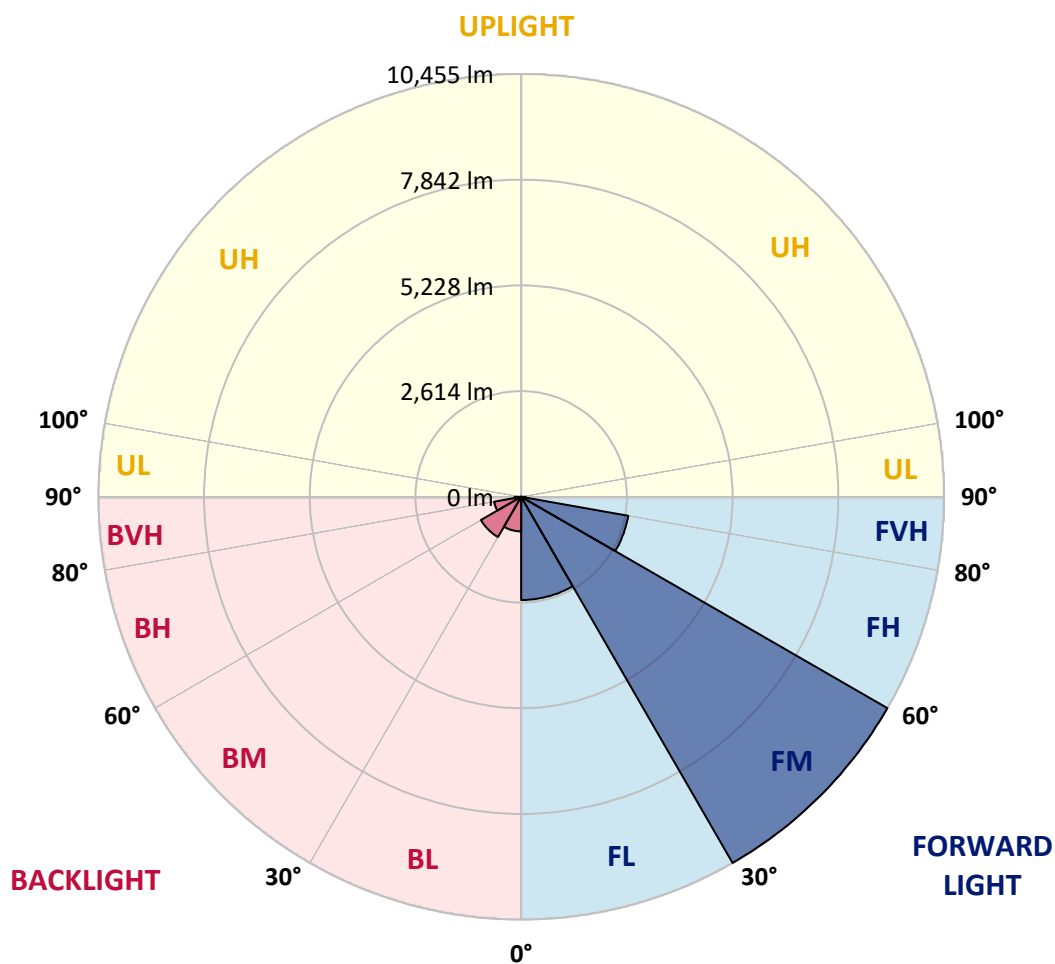
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2550.7  | 13.7      |                         |      |         |
| FM   | (30°-60°)   | 10455.5 | 56.1      |                         |      |         |
| FH   | (60°-80°)   | 2688.5  | 14.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 106.0   | 0.6       |                         |      | G2/225  |
| BL   | (0°-30°)    | 854.6   | 4.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1147.6  | 6.2       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 678.4   | 3.6       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 162.7   | 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°    | 4952.4 | 4952.4 | 4952.4 | 4952.4  | 4952.4  | 4952.4  | 4952.4  | 4952.4  | 4952.4  | 4952.4  | 4952.4 |
| 2.5°  | 5659.1 | 5613.5 | 5584.5 | 5559.0  | 5525.7  | 5454.6  | 5358.9  | 5298.3  | 5267.6  | 5163.1  | 5039.3 |
| 5°    | 6214.0 | 6173.6 | 6143.7 | 6109.5  | 6049.8  | 5938.3  | 5783.8  | 5660.9  | 5600.3  | 5391.4  | 5143.8 |
| 7.5°  | 6084.0 | 6100.7 | 6152.5 | 6243.0  | 6320.2  | 6305.3  | 6167.5  | 6011.2  | 5931.3  | 5640.7  | 5264.9 |
| 10°   | 5300.9 | 5329.9 | 5419.5 | 5631.0  | 5973.4  | 6324.6  | 6431.7  | 6323.7  | 6243.0  | 5887.4  | 5389.6 |
| 12.5° | 5143.8 | 5142.9 | 5149.9 | 5206.1  | 5409.8  | 5904.1  | 6440.5  | 6549.4  | 6501.1  | 6122.7  | 5516.9 |
| 15°   | 5207.9 | 5209.6 | 5204.4 | 5228.1  | 5291.3  | 5487.1  | 6171.8  | 6636.3  | 6670.5  | 6359.7  | 5648.6 |
| 17.5° | 5376.4 | 5372.0 | 5351.9 | 5351.9  | 5374.7  | 5451.1  | 5855.8  | 6555.5  | 6713.5  | 6569.5  | 5764.5 |
| 20°   | 5659.1 | 5638.9 | 5585.4 | 5536.2  | 5511.6  | 5552.9  | 5725.9  | 6369.4  | 6638.9  | 6753.0  | 5860.2 |
| 22.5° | 6001.5 | 5985.7 | 5898.8 | 5793.5  | 5708.3  | 5707.4  | 5792.6  | 6207.0  | 6509.8  | 6926.0  | 5940.9 |
| 25°   | 6444.0 | 6418.5 | 6289.5 | 6120.9  | 5971.7  | 5914.6  | 5938.3  | 6199.1  | 6439.6  | 7113.9  | 6012.9 |
| 27.5° | 6963.7 | 6917.2 | 6764.4 | 6521.3  | 6301.8  | 6186.8  | 6152.5  | 6342.2  | 6503.7  | 7346.5  | 6113.0 |
| 30°   | 7594.1 | 7540.5 | 7344.8 | 7027.8  | 6717.9  | 6529.2  | 6456.3  | 6595.9  | 6716.2  | 7630.1  | 6273.7 |
| 32.5° | 8311.4 | 8234.1 | 8007.6 | 7658.2  | 7250.8  | 6962.9  | 6844.3  | 6931.3  | 7026.9  | 7971.6  | 6474.7 |
| 35°   | 9302.5 | 9210.4 | 8882.9 | 8400.9  | 7940.9  | 7544.9  | 7355.3  | 7418.5  | 7511.6  | 8480.8  | 6765.3 |
| 37.5° | 9978.5 | 9937.3 | 9719.6 | 9266.5  | 8766.1  | 8310.5  | 8017.2  | 8054.1  | 8106.8  | 9117.3  | 7137.6 |
| 40°   | 9972.4 | 9989.1 | 9993.5 | 9997.9  | 9657.2  | 9220.9  | 8905.7  | 8867.1  | 8856.6  | 9816.1  | 7560.7 |
| 42.5° | 9472.9 | 9541.3 | 9762.6 | 10211.2 | 10418.4 | 10218.2 | 9929.4  | 9817.9  | 9762.6  | 10639.6 | 8009.3 |
| 45°   | 8708.2 | 8745.1 | 9159.4 | 10035.6 | 10808.2 | 11205.9 | 10987.3 | 10636.1 | 10536.0 | 11396.4 | 8381.6 |
| 47.5° | 8314.0 | 8354.4 | 8615.1 | 9570.3  | 10803.8 | 12003.9 | 12130.3 | 11461.4 | 11282.3 | 12054.8 | 8702.9 |
| 50°   | 7375.5 | 7459.8 | 7788.1 | 8760.9  | 10409.6 | 12370.9 | 13325.2 | 12444.6 | 12074.2 | 12695.7 | 9025.1 |
| 52.5° | 5652.1 | 5782.0 | 6149.9 | 7429.9  | 9409.6  | 12189.2 | 14281.3 | 13636.9 | 13113.6 | 13359.4 | 9301.7 |
| 55°   | 3565.3 | 3661.8 | 3970.9 | 5247.4  | 7527.4  | 11243.6 | 14643.9 | 14926.6 | 14461.3 | 13988.0 | 9541.3 |
| 57.5° | 1938.5 | 1981.5 | 2097.4 | 2897.2  | 4896.2  | 9153.3  | 14115.3 | 15660.5 | 15467.4 | 14521.8 | 9722.2 |
| 58°   | 1734.8 | 1763.8 | 1835.8 | 2510.9  | 4342.2  | 8581.8  | 13880.9 | 15663.1 | 15566.6 | 14600.0 | 9736.2 |
| 60°   | 1287.0 | 1272.1 | 1208.0 | 1432.8  | 2416.9  | 5928.7  | 12464.0 | 15036.3 | 15319.9 | 14695.7 | 9667.8 |
| 62.5° | 1130.8 | 1094.8 | 964.0  | 949.0   | 1175.5  | 2731.2  | 9536.9  | 12880.1 | 13550.0 | 14149.6 | 9251.6 |
| 65°   | 1062.3 | 1023.7 | 855.1  | 800.7   | 848.1   | 1155.4  | 5617.9  | 9659.9  | 10500.0 | 12493.8 | 8187.6 |
| 67.5° | 1011.4 | 961.3  | 785.7  | 711.1   | 714.6   | 763.8   | 2251.9  | 6084.0  | 7029.6  | 9486.0  | 6368.5 |
| 70°   | 962.2  | 907.8  | 726.9  | 640.9   | 620.7   | 604.0   | 895.5   | 3045.5  | 3903.3  | 5991.9  | 4060.4 |
| 72.5° | 909.5  | 856.0  | 675.1  | 585.6   | 546.1   | 490.8   | 584.7   | 1245.8  | 1740.1  | 2834.8  | 1841.9 |
| 75°   | 833.2  | 784.9  | 623.3  | 536.4   | 480.2   | 406.5   | 441.6   | 650.5   | 780.5   | 1129.0  | 887.6  |
| 77.5° | 739.2  | 699.7  | 565.4  | 496.0   | 425.8   | 330.1   | 339.8   | 451.3   | 500.4   | 646.2   | 527.6  |
| 80°   | 531.1  | 545.2  | 503.1  | 446.0   | 379.3   | 267.8   | 260.7   | 329.2   | 355.6   | 415.3   | 343.3  |
| 82.5° | 373.1  | 381.0  | 416.1  | 364.3   | 313.4   | 210.7   | 192.3   | 231.8   | 247.6   | 273.0   | 185.2  |
| 85°   | 257.2  | 248.5  | 285.3  | 253.7   | 226.5   | 140.5   | 131.7   | 157.1   | 166.8   | 169.4   | 95.7   |
| 87.5° | 154.5  | 154.5  | 165.1  | 136.1   | 122.0   | 72.9    | 71.1    | 89.5    | 95.7    | 91.3    | 52.7   |
| 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°    | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 | 4952.4 |
| 2.5°  | 4965.6 | 4903.2 | 4770.7 | 4664.4 | 4530.1 | 4390.5 | 4312.4 | 4229.0 | 4171.9 | 4130.7 | 4196.5 |
| 5°    | 5003.3 | 4876.0 | 4602.1 | 4342.2 | 4055.2 | 3756.7 | 3530.2 | 3319.5 | 3172.8 | 3081.5 | 3167.6 |
| 7.5°  | 5063.0 | 4867.2 | 4430.9 | 3986.7 | 3471.3 | 2974.4 | 2530.2 | 2251.9 | 2089.5 | 2009.6 | 2059.6 |
| 10°   | 5131.5 | 4853.2 | 4229.9 | 3504.7 | 2767.2 | 2141.3 | 1809.4 | 1697.0 | 1660.2 | 1645.2 | 1652.3 |
| 12.5° | 5188.6 | 4823.3 | 3983.2 | 2921.7 | 2078.1 | 1690.9 | 1595.2 | 1592.6 | 1600.5 | 1602.2 | 1604.9 |
| 15°   | 5228.9 | 4779.4 | 3617.1 | 2314.2 | 1661.9 | 1540.8 | 1535.5 | 1551.3 | 1566.2 | 1572.4 | 1575.9 |
| 17.5° | 5256.2 | 4689.0 | 3203.6 | 1829.6 | 1489.0 | 1467.9 | 1480.2 | 1500.4 | 1516.2 | 1520.6 | 1524.1 |
| 20°   | 5253.5 | 4556.5 | 2711.0 | 1525.8 | 1395.0 | 1395.0 | 1416.1 | 1431.9 | 1432.8 | 1427.5 | 1430.1 |
| 22.5° | 5226.3 | 4374.7 | 2233.5 | 1364.3 | 1311.6 | 1326.6 | 1347.6 | 1332.7 | 1271.2 | 1230.9 | 1233.5 |
| 25°   | 5180.7 | 4157.9 | 1824.3 | 1261.6 | 1234.4 | 1260.7 | 1254.6 | 1142.2 | 1054.4 | 1014.9 | 1014.9 |
| 27.5° | 5140.3 | 3901.5 | 1510.0 | 1172.0 | 1157.1 | 1189.6 | 1080.7 | 978.9  | 942.0  | 923.6  | 917.4  |
| 30°   | 5111.3 | 3625.0 | 1300.2 | 1086.0 | 1084.2 | 1060.5 | 937.6  | 909.5  | 903.4  | 888.5  | 883.2  |
| 32.5° | 5118.3 | 3344.9 | 1165.9 | 1010.5 | 1016.6 | 907.8  | 869.1  | 875.3  | 870.0  | 854.2  | 847.2  |
| 35°   | 5176.3 | 3078.9 | 1078.1 | 942.0  | 923.6  | 820.0  | 828.8  | 840.2  | 838.4  | 816.5  | 809.5  |
| 37.5° | 5279.9 | 2826.9 | 1020.2 | 885.0  | 805.9  | 776.1  | 790.1  | 807.7  | 803.3  | 788.4  | 783.1  |
| 40°   | 5388.7 | 2589.9 | 972.7  | 840.2  | 736.6  | 746.2  | 758.5  | 768.2  | 772.6  | 777.0  | 773.5  |
| 42.5° | 5495.0 | 2342.3 | 914.8  | 794.5  | 707.6  | 718.1  | 723.4  | 733.1  | 756.8  | 773.5  | 772.6  |
| 45°   | 5558.2 | 2109.7 | 855.1  | 729.6  | 684.8  | 690.9  | 687.4  | 706.7  | 735.7  | 762.9  | 763.8  |
| 47.5° | 5628.4 | 1928.8 | 807.7  | 669.9  | 662.8  | 667.2  | 656.7  | 676.0  | 702.3  | 735.7  | 739.2  |
| 50°   | 5713.6 | 1820.8 | 769.9  | 622.5  | 633.0  | 633.0  | 630.4  | 647.9  | 684.8  | 723.4  | 730.4  |
| 52.5° | 5810.1 | 1799.8 | 738.3  | 588.2  | 603.1  | 602.3  | 604.9  | 631.2  | 671.6  | 709.4  | 715.5  |
| 55°   | 5927.8 | 1856.8 | 704.1  | 562.8  | 574.2  | 577.7  | 586.5  | 616.3  | 650.5  | 693.6  | 696.2  |
| 57.5° | 6064.7 | 1972.7 | 676.9  | 542.6  | 547.8  | 559.2  | 573.3  | 600.5  | 637.4  | 684.8  | 687.4  |
| 58°   | 6087.6 | 1997.3 | 672.5  | 540.8  | 542.6  | 555.7  | 571.5  | 597.9  | 634.7  | 686.5  | 689.2  |
| 60°   | 6088.4 | 2078.9 | 662.8  | 532.9  | 522.4  | 544.3  | 561.9  | 588.2  | 630.4  | 692.7  | 698.8  |
| 62.5° | 5872.5 | 2078.1 | 655.8  | 521.5  | 501.3  | 528.5  | 548.7  | 579.4  | 626.0  | 707.6  | 719.9  |
| 65°   | 5171.0 | 1888.4 | 622.5  | 503.9  | 484.6  | 514.5  | 537.3  | 573.3  | 638.3  | 772.6  | 780.5  |
| 67.5° | 4044.6 | 1547.8 | 560.1  | 479.3  | 462.7  | 500.4  | 530.3  | 572.4  | 651.4  | 787.5  | 792.8  |
| 70°   | 2674.2 | 1158.0 | 491.6  | 451.3  | 439.8  | 483.7  | 533.8  | 602.3  | 636.5  | 755.9  | 741.9  |
| 72.5° | 1388.0 | 813.0  | 436.3  | 416.1  | 413.5  | 468.8  | 584.7  | 598.7  | 621.6  | 711.1  | 693.6  |
| 75°   | 728.7  | 564.5  | 388.0  | 377.5  | 381.9  | 465.3  | 690.1  | 582.9  | 602.3  | 680.4  | 713.8  |
| 77.5° | 446.0  | 455.6  | 346.8  | 342.4  | 351.2  | 454.8  | 689.2  | 562.8  | 574.2  | 626.0  | 662.8  |
| 80°   | 298.5  | 369.6  | 315.2  | 316.1  | 322.2  | 416.1  | 618.9  | 531.1  | 539.9  | 591.7  | 629.5  |
| 82.5° | 188.8  | 218.6  | 286.2  | 301.1  | 293.2  | 343.3  | 525.9  | 483.7  | 496.0  | 676.9  | 715.5  |
| 85°   | 95.7   | 137.0  | 248.5  | 289.7  | 264.3  | 240.6  | 426.7  | 424.0  | 430.2  | 488.1  | 510.1  |
| 87.5° | 43.9   | 75.5   | 194.0  | 252.8  | 199.3  | 150.1  | 309.9  | 314.3  | 338.9  | 346.8  | 346.8  |
| 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)