

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: P453355

Luminaire Tested: **GALN-SA4B-827-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453355  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4B-827-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16709 lumens  
Efficiency: N/A  
Efficacy: 101.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

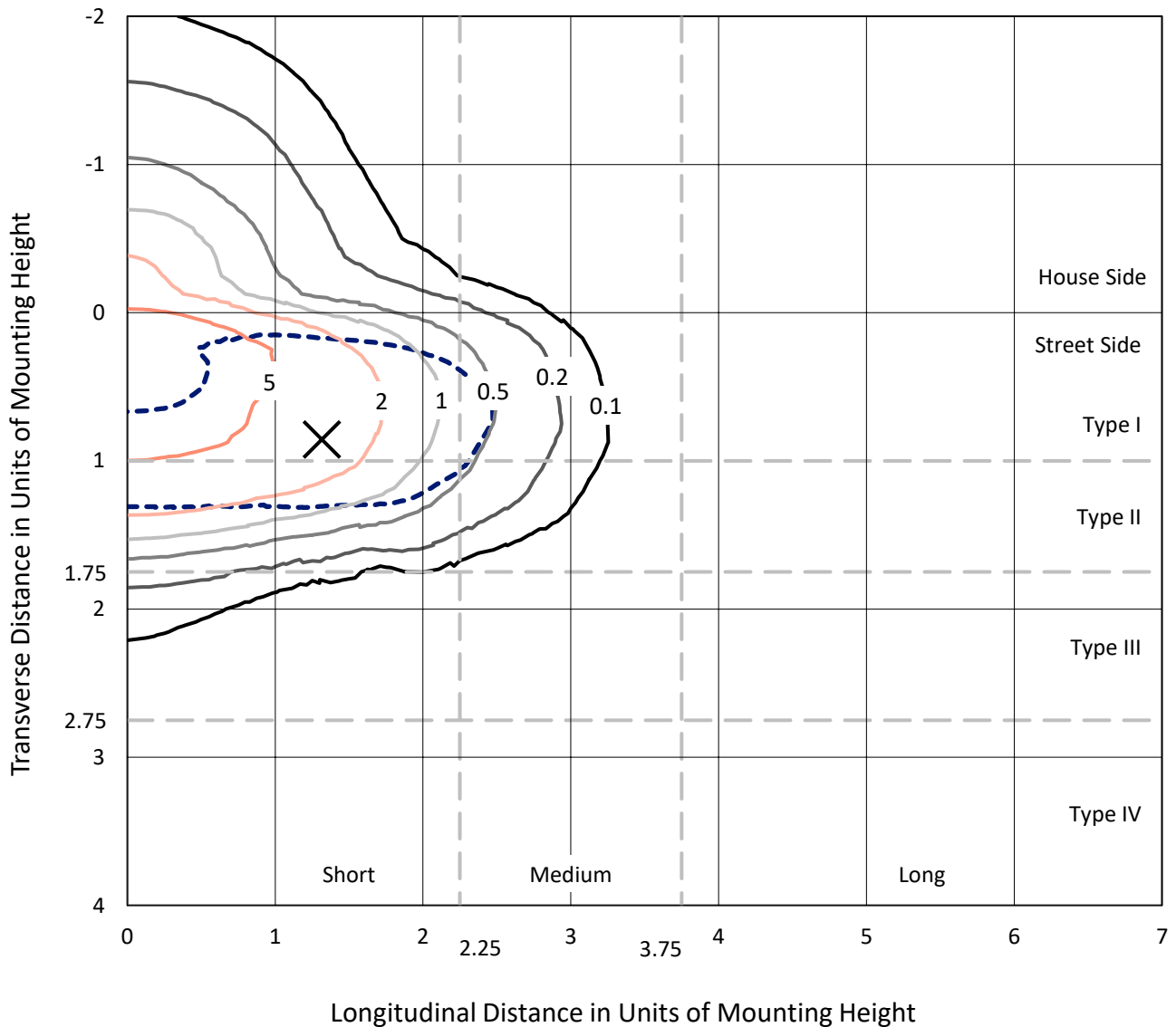
Input Watts (W): 164  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

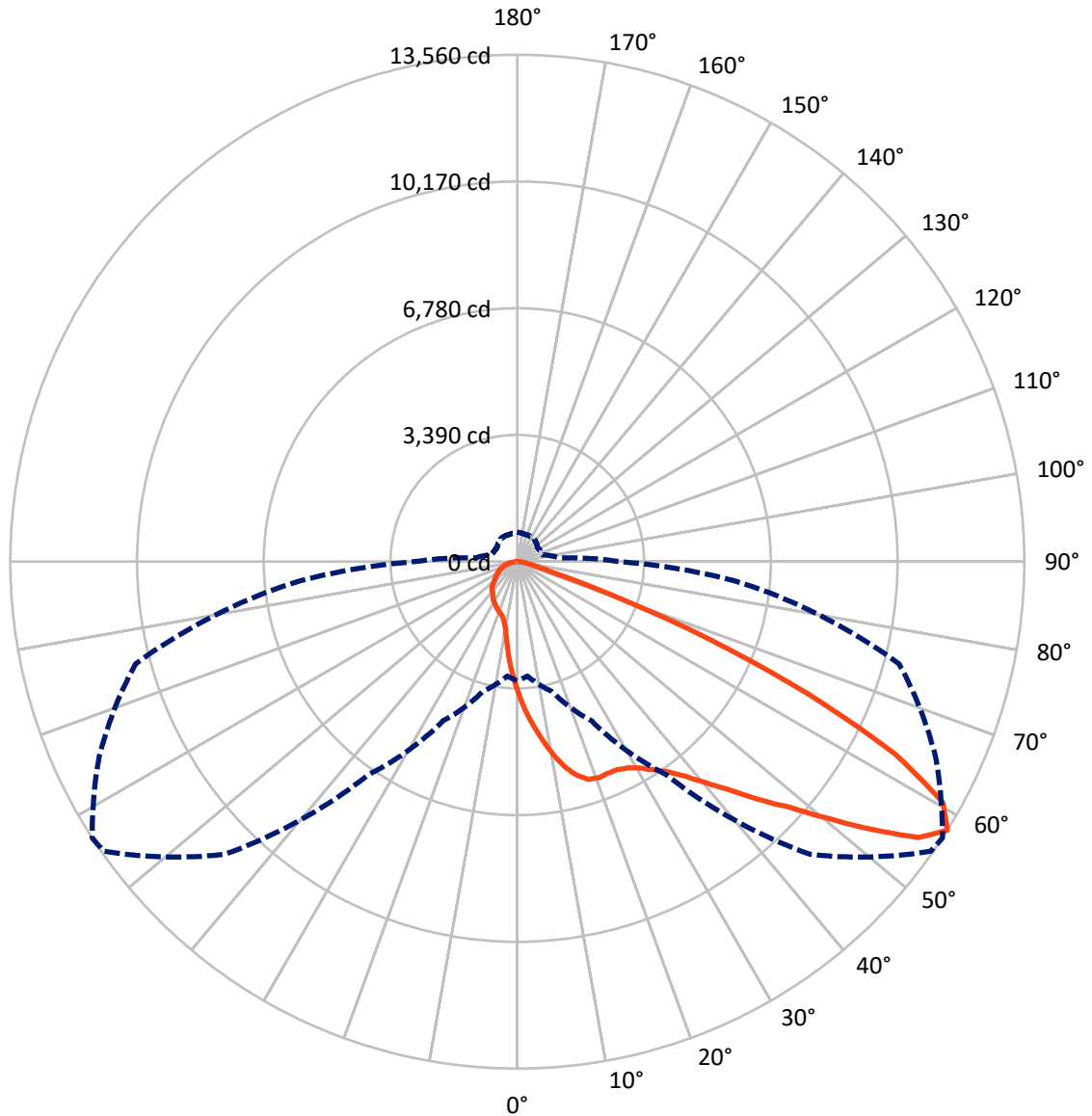
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2541.0   | 0.0    | 2541.0  |
|                    | % Fixture | 15.2     | 0.0    | 15.2    |
| <b>Street Side</b> | Lumens    | 14168.0  | 0.0    | 14168.0 |
|                    | % Fixture | 84.8     | 0.0    | 84.8    |
| <b>Total</b>       | Lumens    | 16709.0  | 0.0    | 16709.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 337.4   | 2.0       |
| 10°-20°   | 994.3   | 6.0       |
| 20°-30°   | 1651.0  | 9.9       |
| 30°-40°   | 2486.9  | 14.9      |
| 40°-50°   | 3733.9  | 22.3      |
| 50°-60°   | 4185.2  | 25.0      |
| 60°-70°   | 2449.4  | 14.7      |
| 70°-80°   | 724.5   | 4.3       |
| 80°-90°   | 146.4   | 0.9       |
| 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°    | 16709.0 | 100.0     |
| 0°-180°   | 16709.0 | 100.0     |

**Coefficient of Utilization**



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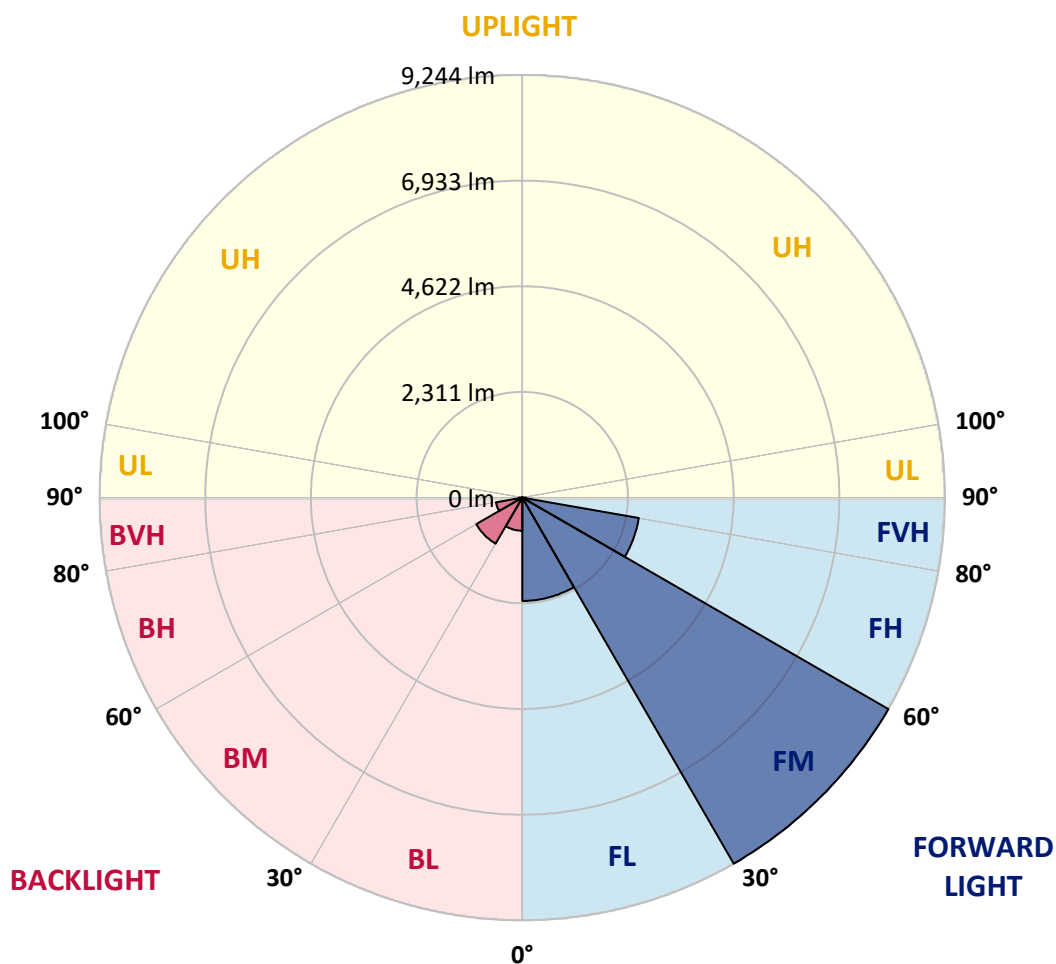
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2258.7 | 13.5      |                         |      |         |
| FM   | (30°-60°)   | 9244.2 | 55.3      |                         |      |         |
| FH   | (60°-80°)   | 2589.2 | 15.5      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 76.0   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 724.0  | 4.3       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1161.8 | 7.0       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 584.7  | 3.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 70.5   | 0.4       |                         |      | G1/100  |
| 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°     | 57°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4  | 3510.4  | 3510.4  | 3510.4  | 3510.4  | 3510.4  | 3510.4 |
| 2.5°  | 4361.9 | 4314.3 | 4276.8 | 4243.9 | 4200.9  | 4084.8  | 3968.6  | 3966.8  | 3874.4  | 3731.7  | 3585.4 |
| 5°    | 5072.6 | 5008.5 | 5016.8 | 4914.3 | 4811.9  | 4643.6  | 4397.6  | 4384.8  | 4188.1  | 3921.0  | 3649.4 |
| 7.5°  | 5535.4 | 5536.3 | 5510.7 | 5452.1 | 5341.5  | 5150.3  | 4871.3  | 4808.2  | 4534.8  | 4129.6  | 3722.6 |
| 10°   | 5511.6 | 5536.3 | 5579.3 | 5629.6 | 5663.4  | 5569.2  | 5314.9  | 5238.1  | 4882.3  | 4382.0  | 3804.0 |
| 12.5° | 5195.1 | 5233.5 | 5294.8 | 5421.0 | 5625.0  | 5780.5  | 5693.6  | 5631.4  | 5284.8  | 4633.5  | 3893.6 |
| 15°   | 4997.6 | 5020.4 | 5054.3 | 5139.3 | 5358.8  | 5731.1  | 5956.1  | 5923.2  | 5664.3  | 4918.0  | 3994.2 |
| 17.5° | 4937.2 | 4960.1 | 4971.0 | 5023.2 | 5179.6  | 5561.0  | 6059.5  | 6118.0  | 6000.9  | 5179.6  | 4095.7 |
| 20°   | 4997.6 | 5008.5 | 5008.5 | 5039.6 | 5162.2  | 5461.3  | 6054.9  | 6172.9  | 6277.1  | 5493.3  | 4190.9 |
| 22.5° | 5155.8 | 5160.4 | 5154.0 | 5164.9 | 5256.4  | 5488.7  | 6011.9  | 6158.2  | 6500.3  | 5759.5  | 4264.9 |
| 25°   | 5412.8 | 5420.1 | 5378.1 | 5352.4 | 5419.2  | 5609.5  | 6035.7  | 6170.1  | 6675.0  | 6013.7  | 4314.3 |
| 27.5° | 5704.6 | 5713.7 | 5662.5 | 5603.1 | 5634.2  | 5758.5  | 6129.0  | 6249.7  | 6805.8  | 6264.3  | 4345.4 |
| 30°   | 6062.2 | 6065.9 | 5979.9 | 5908.5 | 5888.4  | 5980.8  | 6288.1  | 6400.6  | 6968.6  | 6559.8  | 4392.1 |
| 32.5° | 6428.1 | 6455.5 | 6344.8 | 6244.2 | 6210.4  | 6238.7  | 6523.2  | 6632.0  | 7162.5  | 6877.1  | 4467.1 |
| 35°   | 6925.6 | 6930.2 | 6797.6 | 6675.0 | 6563.4  | 6600.0  | 6824.1  | 6902.8  | 7430.5  | 7243.9  | 4573.2 |
| 37.5° | 7546.7 | 7588.7 | 7405.8 | 7177.1 | 7039.9  | 6986.9  | 7188.1  | 7274.1  | 7806.4  | 7693.9  | 4733.2 |
| 40°   | 8236.3 | 8251.8 | 8095.4 | 7952.8 | 7702.1  | 7548.5  | 7687.5  | 7780.8  | 8270.1  | 8230.8  | 4918.9 |
| 42.5° | 8669.8 | 8703.7 | 8715.6 | 8700.9 | 8512.5  | 8254.6  | 8307.6  | 8351.5  | 8818.9  | 8734.8  | 5109.2 |
| 45°   | 8816.2 | 8866.5 | 9036.6 | 9397.0 | 9417.1  | 9162.8  | 9039.3  | 9081.4  | 9417.1  | 9243.3  | 5291.2 |
| 47.5° | 8573.8 | 8659.8 | 8973.5 | 9712.5 | 10265.9 | 10285.1 | 9912.8  | 9820.4  | 9962.2  | 9664.9  | 5422.9 |
| 50°   | 7947.3 | 7965.6 | 8445.7 | 9515.9 | 10663.7 | 11357.9 | 10972.9 | 10800.9 | 10479.9 | 9976.8  | 5513.4 |
| 52.5° | 6977.8 | 6998.8 | 7401.2 | 8602.1 | 10418.6 | 12107.9 | 12213.1 | 11905.8 | 11005.8 | 10219.2 | 5572.9 |
| 55°   | 5179.6 | 5301.2 | 5743.9 | 6904.6 | 9257.0  | 12037.5 | 13199.1 | 13024.4 | 11641.5 | 10411.3 | 5666.2 |
| 57.5° | 3184.8 | 3073.2 | 3598.2 | 4697.6 | 6962.2  | 11069.8 | 13503.7 | 13560.4 | 12341.2 | 10572.3 | 5822.6 |
| 60°   | 1465.2 | 1487.2 | 1704.0 | 2422.9 | 4243.9  | 8659.8  | 12718.9 | 13077.5 | 12728.1 | 10566.8 | 5861.9 |
| 62.5° | 1009.8 | 989.6  | 934.8  | 1063.7 | 1935.4  | 5476.8  | 10743.3 | 11350.6 | 11952.5 | 10238.4 | 5705.5 |
| 65°   | 902.7  | 882.6  | 776.5  | 740.9  | 889.0   | 2387.2  | 7810.1  | 8576.5  | 10063.7 | 9409.8  | 5315.9 |
| 67.5° | 843.3  | 815.9  | 706.1  | 636.6  | 634.8   | 950.3   | 4605.2  | 5528.1  | 7464.3  | 7955.5  | 4606.1 |
| 70°   | 781.1  | 759.1  | 650.3  | 573.5  | 540.5   | 597.3   | 2024.1  | 2649.7  | 4846.7  | 5732.9  | 3588.1 |
| 72.5° | 718.9  | 693.3  | 595.4  | 513.1  | 470.1   | 447.3   | 775.6   | 1008.8  | 2738.4  | 3437.2  | 2199.7 |
| 75°   | 628.4  | 615.5  | 532.3  | 464.6  | 418.0   | 361.3   | 492.1   | 561.6   | 1309.8  | 1578.7  | 1104.0 |
| 77.5° | 549.7  | 536.0  | 472.9  | 406.1  | 372.3   | 293.6   | 349.4   | 381.4   | 552.4   | 640.2   | 498.5  |
| 80°   | 402.4  | 416.2  | 398.8  | 358.5  | 332.0   | 230.5   | 235.1   | 261.6   | 328.4   | 363.1   | 304.6  |
| 82.5° | 255.2  | 280.8  | 307.3  | 276.2  | 251.5   | 182.0   | 162.8   | 172.9   | 224.1   | 237.8   | 135.4  |
| 85°   | 107.0  | 108.8  | 178.4  | 168.3  | 143.6   | 107.9   | 97.9    | 103.4   | 119.8   | 125.3   | 63.1   |
| 87.5° | 41.2   | 40.2   | 63.1   | 58.5   | 44.8    | 31.1    | 31.1    | 34.8    | 47.6    | 43.9    | 20.1   |
| 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°    | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 | 3510.4 |
| 2.5°  | 3522.3 | 3457.3 | 3328.4 | 3168.3 | 3051.2 | 2919.5 | 2803.4 | 2720.1 | 2689.0 | 2674.4 | 2647.0 |
| 5°    | 3519.5 | 3391.5 | 3124.4 | 2844.5 | 2619.5 | 2389.0 | 2194.2 | 2068.0 | 2057.0 | 1972.9 | 1964.6 |
| 7.5°  | 3520.4 | 3324.7 | 2899.4 | 2487.8 | 2144.8 | 1908.8 | 1747.9 | 1705.8 | 1655.5 | 1642.7 | 1649.1 |
| 10°   | 3523.2 | 3239.6 | 2657.9 | 2134.8 | 1802.7 | 1648.2 | 1587.8 | 1571.3 | 1573.2 | 1578.7 | 1579.6 |
| 12.5° | 3526.8 | 3157.3 | 2407.3 | 1866.8 | 1610.7 | 1546.6 | 1540.2 | 1554.9 | 1570.4 | 1582.3 | 1585.1 |
| 15°   | 3531.4 | 3063.1 | 2163.1 | 1650.9 | 1514.6 | 1509.1 | 1530.2 | 1554.9 | 1576.8 | 1594.2 | 1597.0 |
| 17.5° | 3525.9 | 2953.4 | 1958.2 | 1518.3 | 1461.6 | 1488.1 | 1522.9 | 1554.0 | 1574.1 | 1590.6 | 1592.4 |
| 20°   | 3513.1 | 2830.8 | 1760.7 | 1425.0 | 1428.7 | 1471.6 | 1509.1 | 1538.4 | 1560.4 | 1568.6 | 1575.0 |
| 22.5° | 3463.7 | 2684.5 | 1588.7 | 1352.7 | 1389.3 | 1448.8 | 1493.6 | 1511.0 | 1486.3 | 1468.9 | 1473.5 |
| 25°   | 3379.6 | 2494.2 | 1428.7 | 1294.2 | 1353.7 | 1416.8 | 1462.5 | 1420.4 | 1400.3 | 1393.0 | 1396.6 |
| 27.5° | 3274.4 | 2285.7 | 1307.9 | 1232.9 | 1307.9 | 1381.1 | 1368.3 | 1361.0 | 1351.8 | 1339.9 | 1342.7 |
| 30°   | 3161.0 | 2081.7 | 1205.5 | 1185.4 | 1258.5 | 1300.6 | 1306.1 | 1318.0 | 1307.9 | 1289.6 | 1297.0 |
| 32.5° | 3055.8 | 1889.6 | 1127.7 | 1145.1 | 1223.8 | 1217.4 | 1258.5 | 1272.3 | 1225.6 | 1164.3 | 1167.1 |
| 35°   | 2966.2 | 1711.3 | 1069.2 | 1105.8 | 1164.3 | 1167.1 | 1208.2 | 1160.7 | 1110.4 | 1081.1 | 1082.9 |
| 37.5° | 2898.5 | 1572.3 | 1030.8 | 1072.0 | 1088.4 | 1123.2 | 1101.2 | 1076.5 | 1070.1 | 1050.0 | 1050.9 |
| 40°   | 2858.2 | 1450.6 | 1006.1 | 1045.4 | 1042.7 | 1066.5 | 996.0  | 1020.7 | 1029.9 | 1023.5 | 1024.4 |
| 42.5° | 2818.0 | 1364.6 | 980.5  | 1008.8 | 1007.9 | 961.3  | 945.7  | 966.8  | 990.5  | 993.3  | 991.5  |
| 45°   | 2786.0 | 1297.9 | 954.0  | 953.0  | 971.3  | 898.2  | 893.6  | 906.4  | 940.2  | 956.7  | 955.8  |
| 47.5° | 2750.3 | 1242.1 | 913.7  | 888.1  | 893.6  | 858.8  | 851.5  | 857.0  | 898.2  | 924.7  | 932.0  |
| 50°   | 2705.5 | 1186.3 | 863.4  | 828.7  | 805.8  | 822.3  | 824.1  | 825.0  | 866.2  | 896.3  | 902.7  |
| 52.5° | 2669.8 | 1144.2 | 805.8  | 780.2  | 752.7  | 789.3  | 803.0  | 804.9  | 829.6  | 854.3  | 858.8  |
| 55°   | 2690.9 | 1120.4 | 749.1  | 730.8  | 706.1  | 755.5  | 782.0  | 785.7  | 791.2  | 809.5  | 812.2  |
| 57.5° | 2754.0 | 1125.9 | 703.4  | 679.6  | 661.3  | 715.2  | 760.1  | 762.8  | 759.1  | 781.1  | 784.8  |
| 60°   | 2773.2 | 1123.2 | 669.5  | 622.9  | 611.9  | 672.3  | 728.0  | 733.5  | 732.6  | 764.6  | 771.0  |
| 62.5° | 2692.7 | 1088.4 | 635.7  | 575.3  | 568.0  | 628.4  | 683.2  | 705.2  | 709.8  | 755.5  | 763.7  |
| 65°   | 2503.4 | 1017.1 | 590.9  | 525.0  | 525.0  | 581.7  | 640.2  | 670.4  | 683.2  | 744.5  | 753.7  |
| 67.5° | 2253.7 | 932.9  | 545.1  | 482.0  | 480.2  | 536.9  | 594.5  | 625.6  | 645.7  | 729.0  | 734.5  |
| 70°   | 1870.4 | 819.5  | 488.4  | 435.4  | 435.4  | 486.6  | 538.7  | 576.2  | 605.5  | 699.7  | 699.7  |
| 72.5° | 1281.4 | 681.4  | 419.8  | 382.3  | 383.2  | 430.8  | 483.8  | 525.9  | 560.7  | 641.2  | 643.0  |
| 75°   | 810.4  | 532.3  | 344.8  | 325.6  | 329.3  | 374.1  | 429.0  | 472.9  | 542.4  | 633.8  | 636.6  |
| 77.5° | 430.8  | 374.1  | 274.4  | 269.8  | 274.4  | 315.5  | 376.8  | 437.2  | 544.2  | 549.7  | 540.5  |
| 80°   | 279.0  | 265.2  | 216.8  | 207.6  | 209.5  | 254.3  | 335.7  | 415.2  | 437.2  | 442.7  | 422.6  |
| 82.5° | 151.8  | 168.3  | 153.7  | 144.5  | 144.5  | 198.5  | 286.3  | 330.2  | 313.7  | 260.7  | 248.8  |
| 85°   | 64.9   | 78.7   | 79.6   | 69.5   | 66.8   | 122.6  | 192.1  | 180.2  | 167.4  | 160.1  | 158.2  |
| 87.5° | 18.3   | 25.6   | 25.6   | 19.2   | 14.6   | 33.8   | 38.4   | 11.0   | 0.0    | 0.9    | 1.8    |
| 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)