

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: P522620

Luminaire Tested: **GALN-SA1A-827-U-T4W**

Issue Date: 5/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522620  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA1A-827-U-T4W  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3404 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

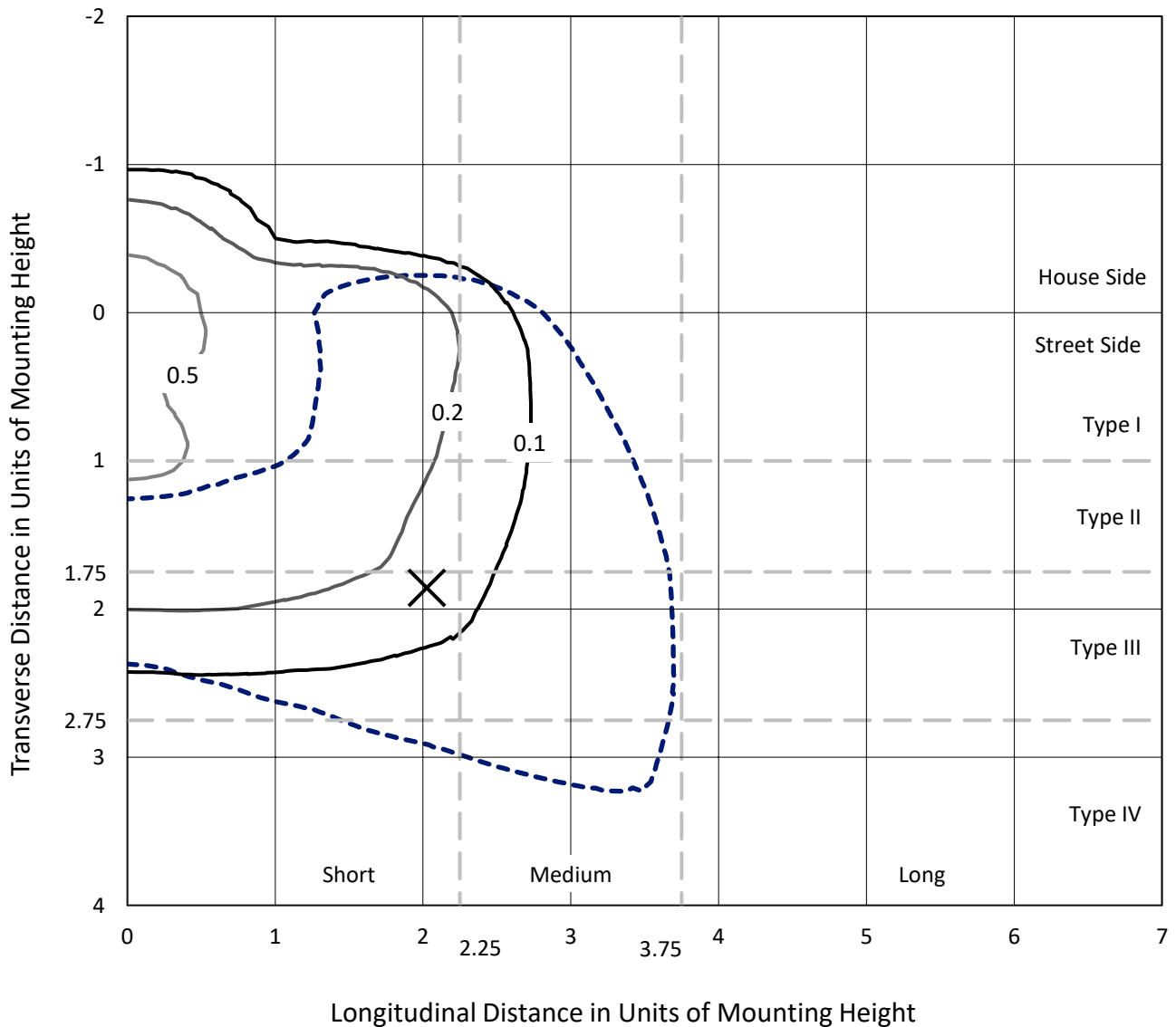
Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

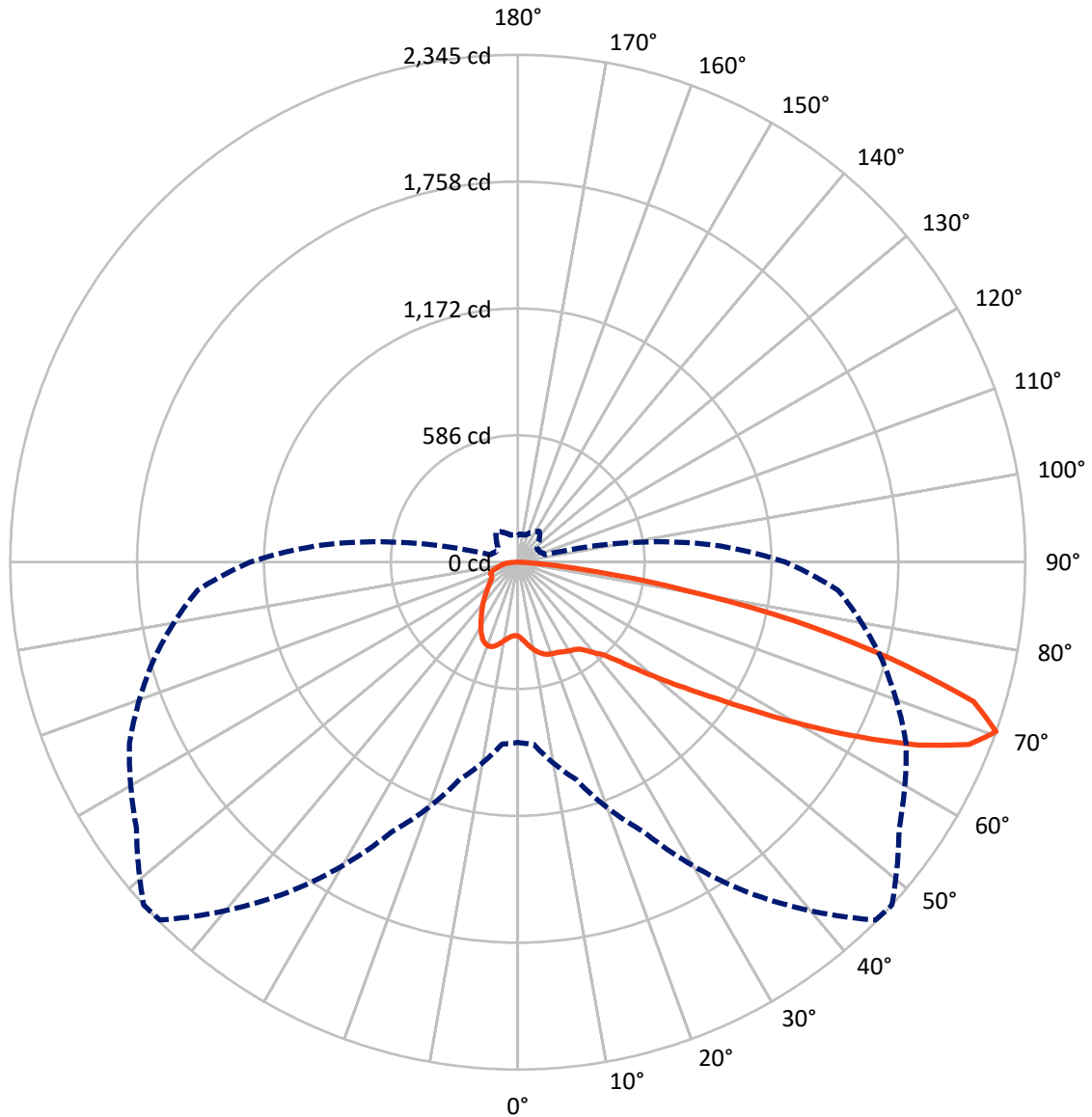
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 770.7    | 0.0    | 770.7  |
|                    | % Fixture | 22.6     | 0.0    | 22.6   |
| <b>Street Side</b> | Lumens    | 2633.3   | 0.0    | 2633.3 |
|                    | % Fixture | 77.4     | 0.0    | 77.4   |
| <b>Total</b>       | Lumens    | 3404.0   | 0.0    | 3404.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 35.2   | 1.0       |
| 10°-20°   | 117.8  | 3.5       |
| 20°-30°   | 195.8  | 5.8       |
| 30°-40°   | 277.6  | 8.2       |
| 40°-50°   | 409.7  | 12.0      |
| 50°-60°   | 709.7  | 20.8      |
| 60°-70°   | 1002.4 | 29.4      |
| 70°-80°   | 576.3  | 16.9      |
| 80°-90°   | 79.5   | 2.3       |
| 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°    | 3404.0 | 100.0     |
| 0°-180°   | 3404.0 | 100.0     |

**Coefficient of Utilization**



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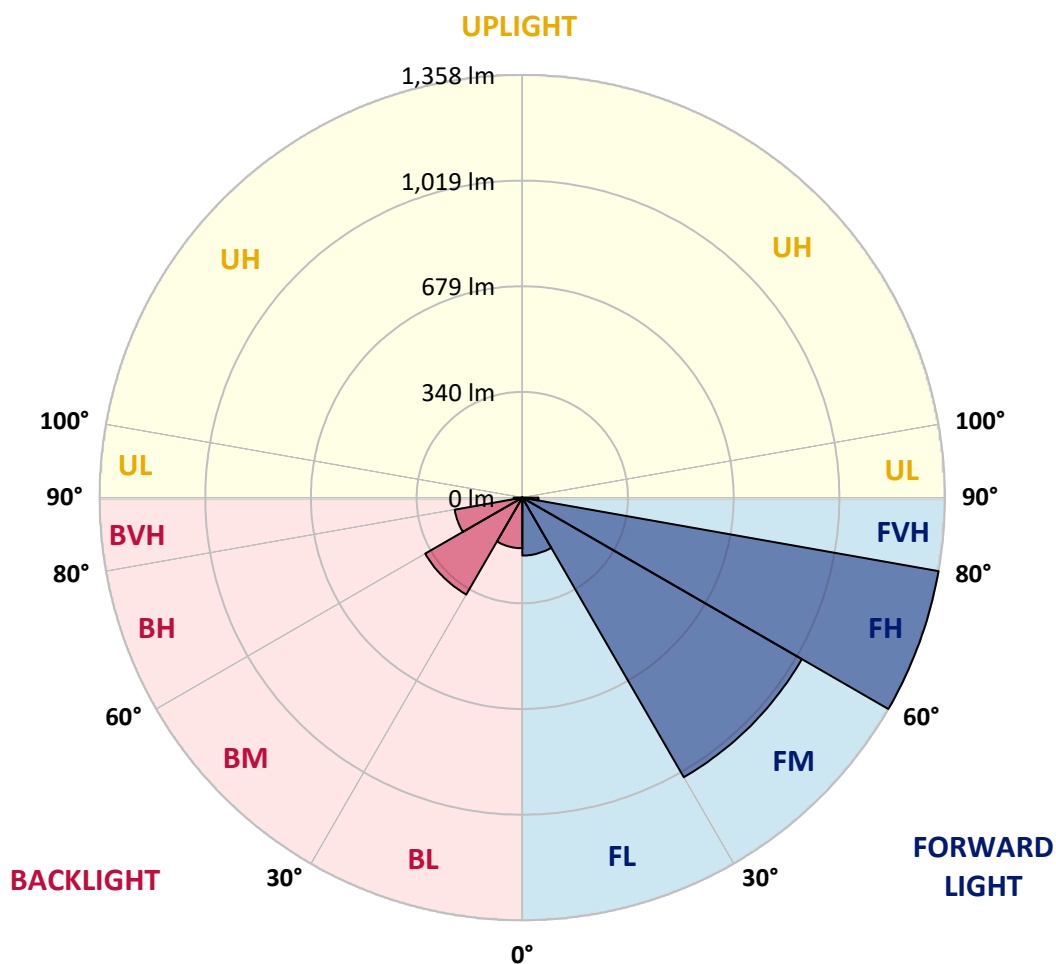
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 186.1  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 1037.1 | 30.5      |                         |      |         |
| FH   | (60°-80°)   | 1358.1 | 39.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 51.9   | 1.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 162.7  | 4.8       | B1/500                  |      |         |
| BM   | (30°-60°)   | 359.8  | 10.6      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 220.7  | 6.5       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 27.6   | 0.8       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 47.5°  | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  | 341.7  |
| 2.5°  | 363.8  | 362.5  | 362.3  | 359.6  | 358.1  | 355.4  | 354.3  | 351.7  | 348.6  | 345.5  | 342.6  |
| 5°    | 392.4  | 392.4  | 391.1  | 387.3  | 381.2  | 375.1  | 372.3  | 367.4  | 358.7  | 351.6  | 345.5  |
| 7.5°  | 421.7  | 422.1  | 419.5  | 413.9  | 405.3  | 395.3  | 392.7  | 385.4  | 373.1  | 362.7  | 353.7  |
| 10°   | 447.0  | 447.0  | 443.5  | 435.9  | 425.1  | 414.2  | 411.7  | 403.5  | 389.6  | 376.7  | 365.0  |
| 12.5° | 466.3  | 466.3  | 461.8  | 451.7  | 440.1  | 430.2  | 427.3  | 419.5  | 406.6  | 392.2  | 377.4  |
| 15°   | 478.9  | 478.0  | 472.9  | 461.6  | 450.3  | 441.7  | 439.7  | 433.2  | 421.3  | 406.7  | 390.2  |
| 17.5° | 479.4  | 479.1  | 474.1  | 464.7  | 454.8  | 449.0  | 447.7  | 443.4  | 434.1  | 420.2  | 402.7  |
| 20°   | 468.9  | 469.6  | 466.3  | 459.6  | 454.8  | 452.3  | 451.7  | 450.3  | 443.7  | 430.8  | 413.3  |
| 22.5° | 457.6  | 458.8  | 455.7  | 452.1  | 451.7  | 454.3  | 454.7  | 455.0  | 450.8  | 438.3  | 422.2  |
| 25°   | 454.8  | 455.7  | 452.7  | 449.4  | 451.4  | 458.1  | 459.6  | 461.0  | 457.8  | 447.2  | 432.8  |
| 27.5° | 468.7  | 468.0  | 461.9  | 454.8  | 456.1  | 465.2  | 467.2  | 468.9  | 467.2  | 458.1  | 445.9  |
| 30°   | 507.8  | 505.5  | 493.5  | 472.7  | 466.1  | 472.5  | 474.5  | 479.1  | 479.1  | 472.3  | 460.1  |
| 32.5° | 573.4  | 568.9  | 546.8  | 506.0  | 483.3  | 479.4  | 481.4  | 488.9  | 492.7  | 487.4  | 474.1  |
| 35°   | 653.0  | 648.3  | 616.8  | 561.9  | 514.6  | 493.3  | 492.7  | 501.1  | 511.3  | 499.5  | 482.2  |
| 37.5° | 733.0  | 728.1  | 690.2  | 628.6  | 560.3  | 522.4  | 519.1  | 522.1  | 526.4  | 504.7  | 493.3  |
| 40°   | 813.0  | 807.1  | 774.0  | 703.1  | 616.2  | 561.0  | 552.5  | 539.4  | 537.5  | 522.1  | 514.8  |
| 42.5° | 892.2  | 886.9  | 870.1  | 786.7  | 683.3  | 598.7  | 585.6  | 563.0  | 570.0  | 560.7  | 554.3  |
| 45°   | 972.2  | 972.5  | 954.7  | 880.5  | 764.1  | 668.3  | 650.7  | 615.3  | 631.7  | 628.2  | 631.9  |
| 47.5° | 1043.0 | 1042.1 | 1035.7 | 971.6  | 864.5  | 757.9  | 735.2  | 694.2  | 722.2  | 735.0  | 762.9  |
| 50°   | 1111.7 | 1111.1 | 1111.5 | 1074.9 | 981.1  | 864.5  | 839.4  | 796.4  | 859.6  | 903.8  | 953.8  |
| 52.5° | 1210.0 | 1213.1 | 1191.1 | 1181.4 | 1122.8 | 990.4  | 962.7  | 918.2  | 1021.9 | 1091.6 | 1189.1 |
| 55°   | 1308.8 | 1306.2 | 1288.9 | 1298.9 | 1271.1 | 1139.4 | 1110.4 | 1075.1 | 1202.6 | 1278.9 | 1425.4 |
| 57.5° | 1366.9 | 1367.8 | 1385.5 | 1434.5 | 1454.1 | 1325.2 | 1298.9 | 1271.6 | 1405.7 | 1459.8 | 1635.6 |
| 60°   | 1419.2 | 1423.4 | 1474.2 | 1566.7 | 1620.1 | 1553.4 | 1530.1 | 1503.5 | 1592.0 | 1613.5 | 1818.1 |
| 62.5° | 1435.6 | 1448.5 | 1537.2 | 1675.6 | 1781.8 | 1811.0 | 1782.0 | 1723.4 | 1769.4 | 1761.1 | 1941.8 |
| 65°   | 1353.8 | 1371.4 | 1530.5 | 1716.4 | 1926.3 | 2055.4 | 2037.0 | 1928.1 | 1920.6 | 1870.2 | 1962.0 |
| 67.5° | 1138.5 | 1156.1 | 1360.3 | 1630.8 | 1986.0 | 2267.1 | 2248.7 | 2077.5 | 2012.4 | 1880.4 | 1809.0 |
| 70°   | 833.0  | 844.1  | 1039.4 | 1373.1 | 1866.0 | 2338.1 | 2344.5 | 2150.3 | 1979.6 | 1741.8 | 1485.3 |
| 72.5° | 480.0  | 504.6  | 641.4  | 966.0  | 1524.4 | 2158.5 | 2202.8 | 1998.8 | 1772.4 | 1453.0 | 1038.5 |
| 75°   | 206.4  | 206.9  | 296.5  | 532.8  | 1032.4 | 1735.0 | 1777.8 | 1656.9 | 1391.8 | 1004.8 | 554.5  |
| 77.5° | 98.2   | 100.0  | 130.4  | 237.9  | 568.3  | 1198.8 | 1314.2 | 1170.5 | 890.2  | 482.7  | 209.5  |
| 80°   | 63.8   | 65.0   | 79.8   | 118.0  | 278.7  | 695.1  | 775.6  | 675.2  | 392.7  | 172.5  | 90.3   |
| 82.5° | 38.6   | 39.0   | 53.4   | 72.1   | 153.4  | 314.8  | 371.0  | 293.1  | 167.6  | 103.3  | 53.2   |
| 85°   | 23.5   | 23.7   | 32.4   | 44.6   | 93.1   | 108.7  | 111.7  | 110.7  | 98.4   | 67.6   | 28.4   |
| 87.5° | 11.3   | 11.7   | 16.8   | 21.1   | 36.6   | 33.7   | 31.9   | 37.0   | 46.4   | 36.4   | 12.2   |
| 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°    | 341.7  | 341.7  | 341.7 | 341.7 | 341.7 | 341.7 | 341.7 | 341.7 | 341.7 | 341.7 | 341.7 |
| 2.5°  | 341.4  | 340.8  | 339.5 | 339.0 | 338.6 | 338.8 | 338.6 | 338.6 | 338.8 | 338.8 | 338.8 |
| 5°    | 343.0  | 342.1  | 340.1 | 340.1 | 341.2 | 343.7 | 346.1 | 347.9 | 349.9 | 349.7 | 349.7 |
| 7.5°  | 350.1  | 348.5  | 346.1 | 346.8 | 349.6 | 353.6 | 357.8 | 361.8 | 365.8 | 366.1 | 365.9 |
| 10°   | 360.5  | 358.8  | 356.3 | 357.2 | 361.6 | 367.6 | 372.9 | 378.7 | 383.1 | 384.3 | 384.0 |
| 12.5° | 372.3  | 369.0  | 366.9 | 369.4 | 376.3 | 384.3 | 389.4 | 393.8 | 396.9 | 398.7 | 398.0 |
| 15°   | 384.3  | 381.2  | 378.7 | 384.0 | 392.4 | 399.8 | 402.4 | 403.1 | 403.7 | 405.5 | 405.1 |
| 17.5° | 396.0  | 391.8  | 390.9 | 397.8 | 405.8 | 409.1 | 407.7 | 404.6 | 402.2 | 403.7 | 403.5 |
| 20°   | 406.4  | 403.1  | 402.7 | 409.7 | 412.8 | 409.7 | 403.5 | 398.0 | 393.8 | 394.2 | 394.0 |
| 22.5° | 416.2  | 413.7  | 414.0 | 417.0 | 412.0 | 401.5 | 391.3 | 383.8 | 379.2 | 380.2 | 380.7 |
| 25°   | 427.2  | 424.6  | 425.5 | 420.8 | 404.6 | 386.2 | 371.4 | 365.0 | 363.2 | 365.0 | 366.3 |
| 27.5° | 441.4  | 439.7  | 439.2 | 421.0 | 391.3 | 363.6 | 346.8 | 344.5 | 346.1 | 350.1 | 352.1 |
| 30°   | 456.7  | 456.7  | 453.7 | 417.9 | 373.1 | 336.4 | 321.9 | 322.2 | 327.9 | 333.5 | 335.5 |
| 32.5° | 471.4  | 474.5  | 465.4 | 409.5 | 349.6 | 310.0 | 298.9 | 299.3 | 304.2 | 311.1 | 312.9 |
| 35°   | 483.6  | 492.5  | 475.4 | 394.2 | 321.9 | 287.8 | 279.4 | 274.5 | 274.7 | 280.0 | 281.4 |
| 37.5° | 500.4  | 517.0  | 481.3 | 371.4 | 292.4 | 268.9 | 259.4 | 250.8 | 245.2 | 243.0 | 243.0 |
| 40°   | 529.5  | 553.9  | 482.7 | 337.7 | 264.5 | 250.8 | 237.3 | 227.1 | 216.2 | 206.4 | 204.6 |
| 42.5° | 578.9  | 609.7  | 479.8 | 298.9 | 239.4 | 231.0 | 217.9 | 205.3 | 190.2 | 176.3 | 175.2 |
| 45°   | 666.3  | 682.2  | 472.0 | 258.7 | 216.9 | 211.8 | 199.1 | 185.4 | 169.4 | 157.0 | 156.1 |
| 47.5° | 806.4  | 784.0  | 461.6 | 223.0 | 196.5 | 195.1 | 185.3 | 169.4 | 153.4 | 144.8 | 143.9 |
| 50°   | 1011.0 | 944.3  | 460.1 | 197.1 | 180.2 | 180.9 | 172.9 | 158.3 | 144.3 | 137.2 | 136.1 |
| 52.5° | 1257.2 | 1137.9 | 469.8 | 178.9 | 165.8 | 168.5 | 164.5 | 151.0 | 138.6 | 132.6 | 131.5 |
| 55°   | 1496.2 | 1312.1 | 475.6 | 164.7 | 152.3 | 157.4 | 157.9 | 146.6 | 135.3 | 129.3 | 128.6 |
| 57.5° | 1690.2 | 1443.2 | 449.7 | 151.7 | 140.6 | 148.5 | 152.5 | 144.1 | 133.7 | 129.1 | 128.4 |
| 60°   | 1825.2 | 1505.1 | 376.1 | 140.3 | 132.1 | 141.4 | 150.5 | 144.3 | 137.7 | 138.3 | 138.6 |
| 62.5° | 1868.2 | 1477.6 | 282.2 | 131.7 | 126.2 | 139.0 | 153.7 | 151.7 | 145.0 | 149.2 | 149.9 |
| 65°   | 1796.9 | 1364.0 | 204.6 | 125.0 | 121.1 | 140.6 | 163.6 | 157.2 | 142.4 | 145.5 | 145.5 |
| 67.5° | 1558.5 | 1175.1 | 159.2 | 118.8 | 115.3 | 143.7 | 173.4 | 156.7 | 136.4 | 140.1 | 136.8 |
| 70°   | 1236.3 | 908.9  | 132.6 | 111.8 | 109.1 | 139.2 | 174.3 | 151.0 | 129.3 | 130.1 | 123.9 |
| 72.5° | 820.4  | 597.6  | 114.0 | 105.3 | 99.6  | 125.1 | 166.9 | 143.7 | 122.4 | 118.2 | 112.0 |
| 75°   | 402.0  | 298.0  | 99.5  | 97.1  | 87.3  | 108.9 | 156.7 | 136.8 | 114.9 | 108.4 | 104.9 |
| 77.5° | 155.7  | 126.8  | 84.9  | 86.7  | 76.0  | 96.0  | 143.2 | 127.0 | 105.1 | 96.2  | 93.4  |
| 80°   | 75.6   | 72.0   | 69.6  | 72.3  | 62.5  | 81.8  | 130.8 | 118.4 | 96.0  | 86.2  | 82.2  |
| 82.5° | 47.0   | 44.4   | 53.4  | 56.3  | 48.1  | 74.7  | 124.0 | 111.1 | 84.5  | 71.4  | 68.1  |
| 85°   | 23.9   | 25.5   | 35.7  | 38.4  | 34.4  | 59.4  | 102.2 | 83.4  | 61.0  | 50.6  | 51.0  |
| 87.5° | 9.1    | 12.2   | 18.8  | 20.2  | 18.4  | 31.3  | 56.3  | 48.6  | 39.2  | 26.6  | 24.6  |
| 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)