

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: P450240

Luminaire Tested: **GALN-SA1A-730-U-T3-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P450240  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA1A-730-U-T3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3094 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G1

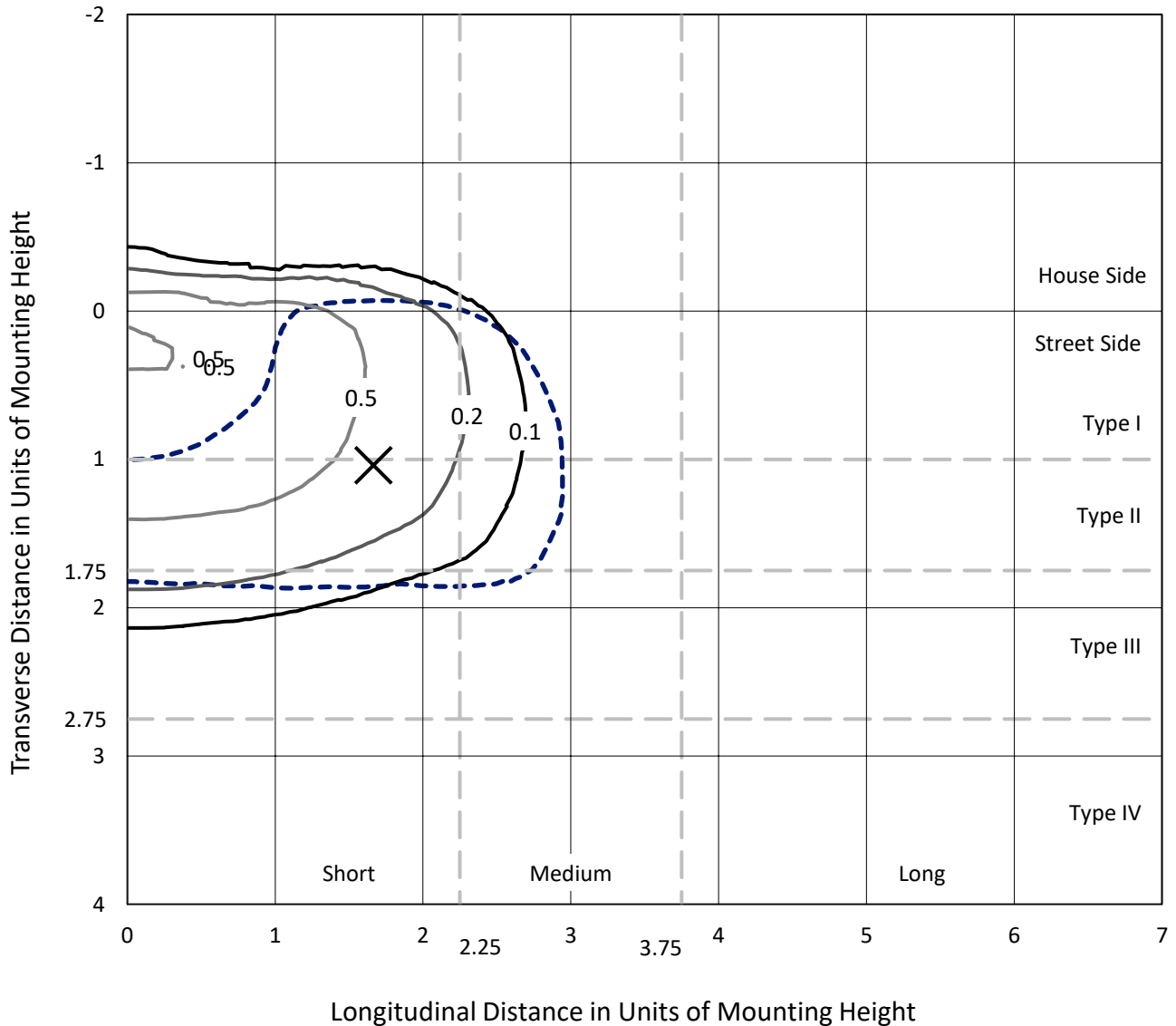
Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

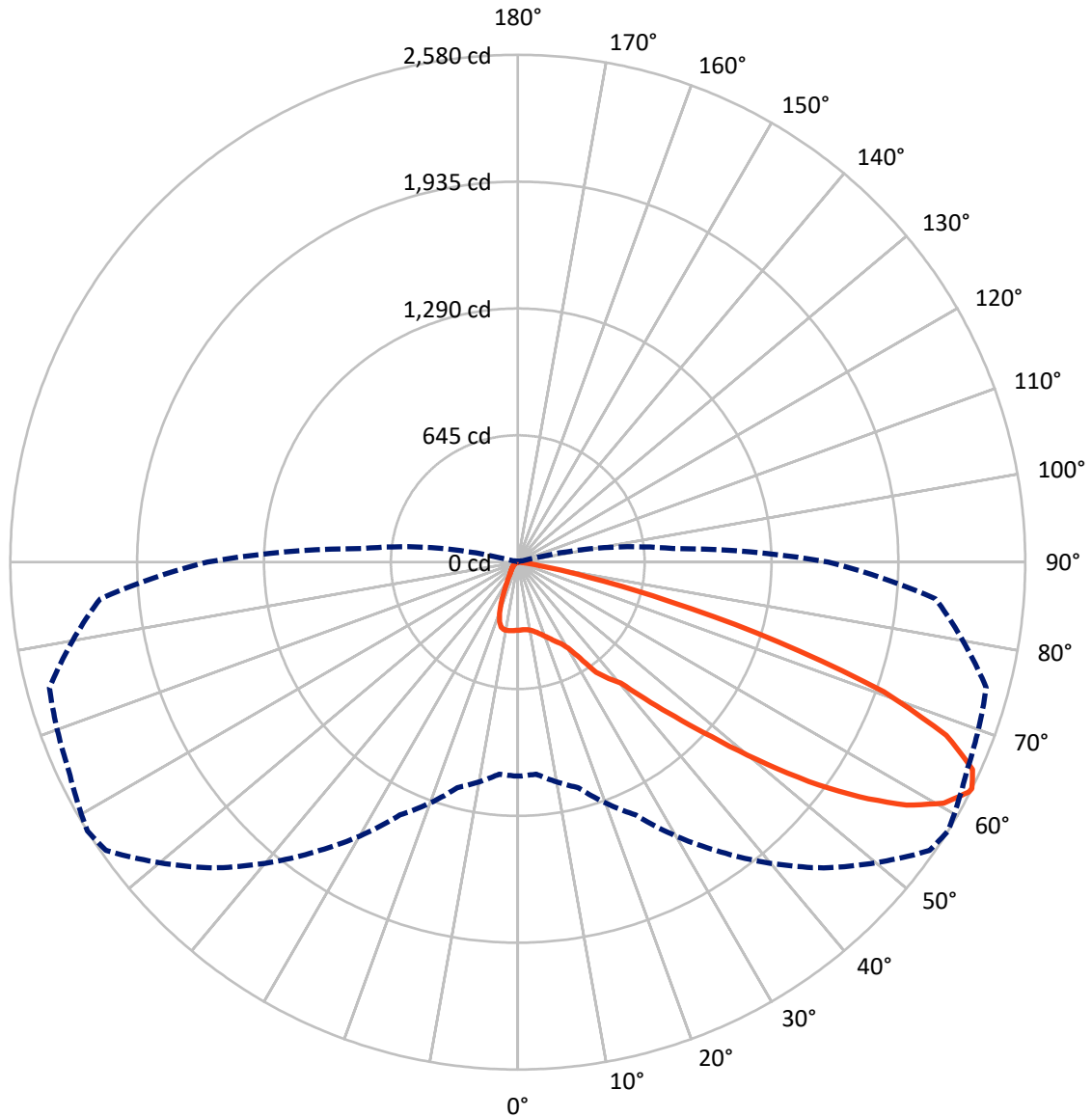
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 63-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 320.4    | 0.0    | 320.4  |
|                    | % Fixture | 10.4     | 0.0    | 10.4   |
| <b>Street Side</b> | Lumens    | 2773.6   | 0.0    | 2773.6 |
|                    | % Fixture | 89.6     | 0.0    | 89.6   |
| <b>Total</b>       | Lumens    | 3094.0   | 0.0    | 3094.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 32.4   | 1.0       |
| 10°-20°   | 88.3   | 2.9       |
| 20°-30°   | 153.3  | 5.0       |
| 30°-40°   | 281.7  | 9.1       |
| 40°-50°   | 530.2  | 17.1      |
| 50°-60°   | 906.9  | 29.3      |
| 60°-70°   | 868.4  | 28.1      |
| 70°-80°   | 221.4  | 7.2       |
| 80°-90°   | 11.3   | 0.4       |
| 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°    | 3094.0 | 100.0     |
| 0°-180°   | 3094.0 | 100.0     |

**Coefficient of Utilization**



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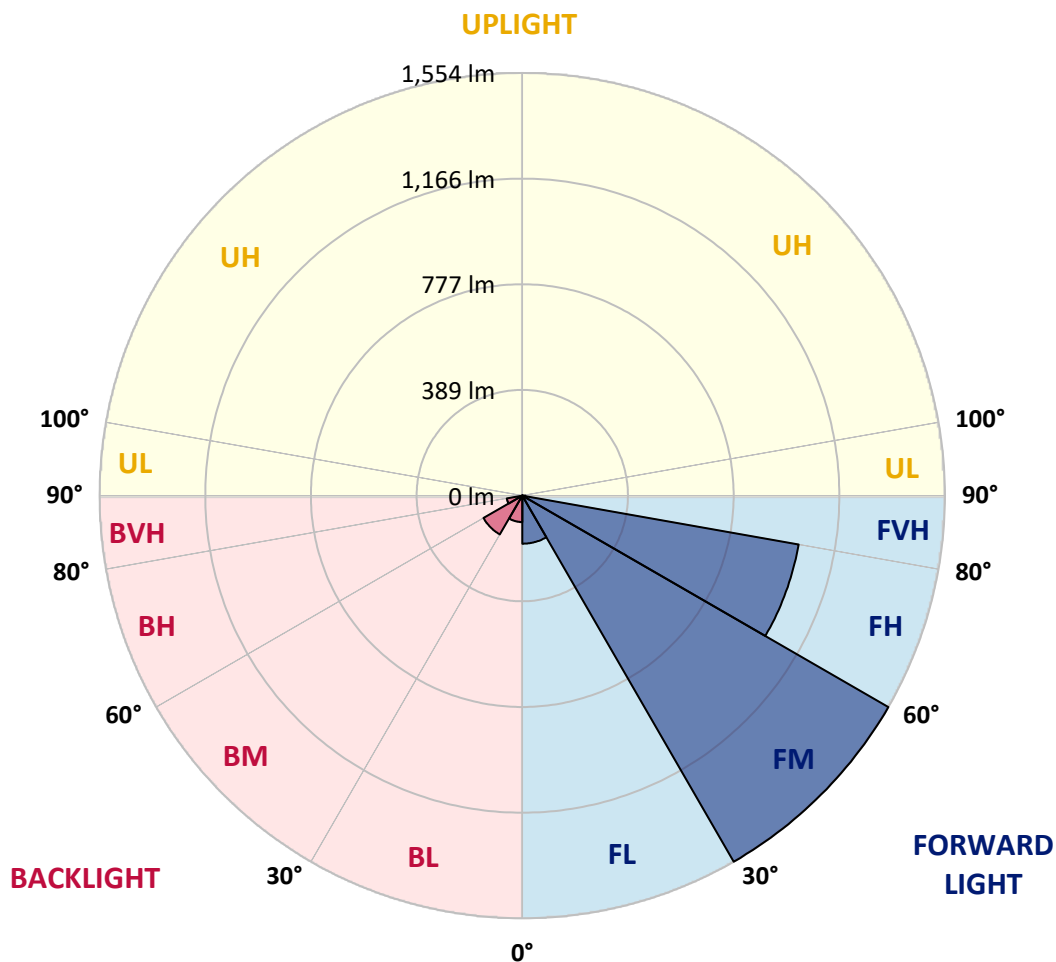
CATALOG NUMBER: GALN-SA1A-730-U-T3-HSS

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 176.9  | 5.7       |                         |      |         |
| FM (30°-60°)   | 1554.1 | 50.2      |                         |      |         |
| FH (60°-80°)   | 1031.8 | 33.3      |                         |      | G1/1800 |
| FVH (80°-90°)  | 10.9   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 97.2   | 3.1       | B0/110                  |      |         |
| BM (30°-60°)   | 164.8  | 5.3       | B0/220                  |      |         |
| BH (60°-80°)   | 58.0   | 1.9       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 0.4    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 58°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  | 346.4  |
| 2.5°  | 337.8  | 338.9  | 340.1  | 340.6  | 342.2  | 343.8  | 345.0  | 344.8  | 346.6  | 347.5  | 347.5  |
| 5°    | 324.3  | 324.3  | 327.3  | 330.1  | 334.7  | 339.4  | 343.8  | 344.8  | 348.2  | 351.5  | 352.7  |
| 7.5°  | 312.8  | 313.5  | 315.9  | 321.0  | 327.3  | 335.4  | 344.3  | 346.4  | 352.4  | 359.7  | 362.7  |
| 10°   | 307.5  | 307.9  | 311.0  | 316.3  | 324.3  | 335.4  | 347.8  | 351.7  | 361.1  | 372.5  | 376.7  |
| 12.5° | 306.3  | 307.0  | 310.0  | 316.1  | 325.2  | 338.7  | 355.5  | 359.7  | 373.2  | 387.8  | 394.1  |
| 15°   | 308.4  | 308.9  | 311.9  | 318.4  | 328.4  | 344.5  | 365.7  | 371.5  | 387.6  | 404.6  | 412.8  |
| 17.5° | 315.9  | 315.4  | 317.5  | 322.9  | 334.0  | 351.7  | 378.1  | 385.1  | 403.9  | 427.2  | 432.6  |
| 20°   | 347.5  | 344.5  | 342.7  | 338.0  | 342.4  | 362.0  | 393.0  | 403.2  | 426.5  | 450.3  | 454.0  |
| 22.5° | 415.8  | 409.0  | 395.8  | 377.6  | 363.6  | 376.0  | 410.9  | 422.8  | 452.8  | 476.1  | 476.1  |
| 25°   | 502.7  | 494.1  | 480.8  | 441.2  | 407.0  | 399.0  | 431.2  | 446.1  | 481.5  | 505.0  | 497.3  |
| 27.5° | 611.5  | 604.7  | 578.9  | 532.7  | 480.3  | 439.3  | 454.7  | 468.4  | 506.9  | 535.3  | 519.2  |
| 30°   | 700.0  | 696.7  | 675.5  | 634.3  | 576.5  | 516.7  | 498.5  | 507.6  | 540.7  | 573.5  | 557.0  |
| 32.5° | 774.8  | 774.8  | 753.1  | 714.7  | 660.6  | 607.5  | 572.8  | 579.3  | 611.0  | 649.0  | 618.2  |
| 35°   | 857.0  | 854.2  | 836.7  | 800.2  | 739.6  | 692.8  | 678.6  | 687.4  | 716.1  | 744.3  | 668.5  |
| 37.5° | 943.4  | 942.5  | 924.3  | 888.9  | 839.5  | 780.6  | 747.3  | 749.6  | 764.3  | 781.5  | 727.5  |
| 40°   | 1037.3 | 1038.7 | 1014.9 | 993.0  | 946.4  | 886.1  | 822.3  | 807.6  | 821.4  | 870.0  | 836.3  |
| 42.5° | 1148.2 | 1144.9 | 1134.7 | 1104.8 | 1067.3 | 1031.2 | 954.6  | 949.2  | 961.4  | 1013.5 | 977.0  |
| 45°   | 1277.0 | 1281.6 | 1263.9 | 1247.4 | 1222.2 | 1192.2 | 1128.1 | 1118.8 | 1132.1 | 1213.2 | 1161.2 |
| 47.5° | 1406.0 | 1401.6 | 1413.0 | 1410.0 | 1423.5 | 1401.1 | 1344.5 | 1325.4 | 1357.4 | 1434.2 | 1357.8 |
| 50°   | 1504.3 | 1509.2 | 1533.0 | 1567.7 | 1625.7 | 1638.3 | 1584.0 | 1577.5 | 1591.7 | 1641.1 | 1533.7 |
| 52.5° | 1568.2 | 1584.5 | 1621.7 | 1711.0 | 1815.6 | 1896.8 | 1855.6 | 1852.1 | 1846.3 | 1859.6 | 1701.9 |
| 55°   | 1609.9 | 1626.4 | 1675.1 | 1806.5 | 1986.5 | 2118.6 | 2120.7 | 2105.8 | 2067.4 | 2057.8 | 1859.1 |
| 57.5° | 1584.2 | 1587.5 | 1656.9 | 1832.6 | 2081.3 | 2276.8 | 2345.3 | 2330.4 | 2259.3 | 2223.2 | 1997.9 |
| 60°   | 1424.0 | 1430.7 | 1527.4 | 1733.8 | 2040.1 | 2328.5 | 2494.1 | 2487.4 | 2409.6 | 2368.8 | 2106.0 |
| 62.5° | 1140.0 | 1159.6 | 1259.1 | 1489.2 | 1848.4 | 2241.4 | 2554.4 | 2573.5 | 2513.0 | 2456.8 | 2140.0 |
| 63°   | 1087.8 | 1081.6 | 1186.6 | 1417.9 | 1797.6 | 2198.3 | 2555.4 | 2579.6 | 2517.6 | 2465.2 | 2130.7 |
| 65°   | 805.3  | 824.2  | 892.4  | 1118.1 | 1496.0 | 1997.7 | 2497.8 | 2540.7 | 2500.4 | 2428.2 | 2027.5 |
| 67.5° | 452.1  | 451.2  | 526.7  | 731.7  | 1047.1 | 1567.0 | 2258.6 | 2349.2 | 2340.8 | 2178.9 | 1680.7 |
| 70°   | 221.3  | 224.8  | 255.8  | 379.2  | 607.3  | 1081.1 | 1876.8 | 1974.7 | 1977.7 | 1711.4 | 1162.1 |
| 72.5° | 100.2  | 101.8  | 123.9  | 184.7  | 312.1  | 575.6  | 1293.3 | 1386.7 | 1369.5 | 1090.6 | 641.8  |
| 75°   | 52.9   | 56.4   | 68.3   | 92.9   | 150.5  | 237.4  | 703.5  | 793.9  | 757.8  | 498.3  | 236.2  |
| 77.5° | 39.1   | 40.3   | 46.4   | 59.2   | 80.6   | 92.5   | 303.5  | 361.1  | 338.2  | 180.3  | 78.3   |
| 80°   | 28.7   | 29.6   | 34.5   | 41.9   | 50.8   | 47.1   | 114.4  | 131.1  | 117.6  | 61.3   | 24.0   |
| 82.5° | 17.5   | 17.7   | 25.2   | 31.2   | 31.9   | 26.3   | 37.7   | 40.5   | 42.4   | 34.5   | 13.0   |
| 85°   | 6.3    | 7.9    | 17.0   | 22.6   | 18.9   | 13.3   | 15.8   | 17.5   | 19.1   | 21.9   | 7.7    |
| 87.5° | 0.7    | 0.9    | 8.2    | 10.9   | 5.4    | 4.9    | 5.8    | 6.5    | 7.0    | 8.2    | 3.7    |
| 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°    | 346.4  | 346.4  | 346.4 | 346.4 | 346.4 | 346.4 | 346.4 | 346.4 | 346.4 | 346.4 | 346.4 |
| 2.5°  | 348.5  | 349.4  | 348.7 | 347.5 | 347.3 | 346.6 | 345.2 | 345.2 | 345.2 | 345.7 | 345.2 |
| 5°    | 353.6  | 354.3  | 352.7 | 350.3 | 347.8 | 344.5 | 341.0 | 338.9 | 338.7 | 338.2 | 337.1 |
| 7.5°  | 363.4  | 364.3  | 360.6 | 355.0 | 348.0 | 340.1 | 332.6 | 325.7 | 322.4 | 319.8 | 319.8 |
| 10°   | 377.6  | 378.5  | 371.1 | 361.1 | 347.1 | 331.0 | 313.3 | 297.2 | 284.7 | 278.8 | 277.4 |
| 12.5° | 394.6  | 395.1  | 382.7 | 365.3 | 342.2 | 311.2 | 273.5 | 238.3 | 213.8 | 202.7 | 201.5 |
| 15°   | 413.2  | 410.0  | 393.7 | 366.9 | 328.2 | 270.4 | 205.2 | 162.1 | 136.7 | 129.3 | 132.1 |
| 17.5° | 432.1  | 426.1  | 402.1 | 364.3 | 296.8 | 205.2 | 137.9 | 110.6 | 102.7 | 100.6 | 100.6 |
| 20°   | 449.8  | 441.4  | 408.1 | 353.1 | 242.3 | 141.4 | 102.3 | 95.7  | 94.3  | 92.9  | 93.2  |
| 22.5° | 467.5  | 454.7  | 413.5 | 328.2 | 180.5 | 101.1 | 91.5  | 89.4  | 87.6  | 85.7  | 85.5  |
| 25°   | 484.8  | 467.0  | 415.6 | 282.1 | 123.0 | 86.9  | 83.6  | 80.8  | 77.1  | 75.0  | 74.5  |
| 27.5° | 502.7  | 482.0  | 414.2 | 223.9 | 89.7  | 77.8  | 74.5  | 70.6  | 66.2  | 62.4  | 62.4  |
| 30°   | 537.2  | 510.4  | 409.3 | 161.0 | 75.5  | 68.5  | 64.3  | 58.0  | 53.1  | 49.4  | 49.2  |
| 32.5° | 584.2  | 547.4  | 392.5 | 113.2 | 67.1  | 60.3  | 54.0  | 47.1  | 41.9  | 39.1  | 39.1  |
| 35°   | 626.1  | 584.7  | 361.1 | 83.4  | 60.3  | 52.4  | 44.7  | 38.0  | 34.0  | 32.1  | 31.4  |
| 37.5° | 690.0  | 639.2  | 317.7 | 67.8  | 53.8  | 45.4  | 37.5  | 31.2  | 28.0  | 26.6  | 26.6  |
| 40°   | 785.7  | 705.8  | 264.6 | 59.4  | 47.5  | 38.7  | 31.2  | 26.3  | 23.8  | 22.1  | 22.1  |
| 42.5° | 904.5  | 787.3  | 210.8 | 53.3  | 41.7  | 33.3  | 26.1  | 22.4  | 20.0  | 18.9  | 18.6  |
| 45°   | 1054.1 | 873.3  | 162.4 | 47.8  | 37.0  | 28.4  | 22.1  | 18.9  | 16.5  | 15.8  | 16.1  |
| 47.5° | 1210.1 | 949.0  | 125.8 | 42.9  | 32.1  | 24.0  | 18.9  | 16.3  | 14.7  | 13.7  | 13.7  |
| 50°   | 1343.4 | 1001.2 | 95.5  | 37.3  | 28.4  | 20.3  | 16.5  | 14.7  | 13.3  | 12.8  | 12.6  |
| 52.5° | 1454.7 | 1016.3 | 73.1  | 32.4  | 24.9  | 17.5  | 14.7  | 13.3  | 12.1  | 11.4  | 11.4  |
| 55°   | 1549.5 | 1003.0 | 57.3  | 27.3  | 21.0  | 15.1  | 13.0  | 11.9  | 10.5  | 9.8   | 9.6   |
| 57.5° | 1605.0 | 960.4  | 43.8  | 22.6  | 17.0  | 12.6  | 11.4  | 10.0  | 8.4   | 7.2   | 7.2   |
| 60°   | 1632.9 | 898.5  | 33.5  | 18.6  | 13.0  | 10.0  | 9.3   | 7.5   | 5.8   | 4.9   | 4.7   |
| 62.5° | 1599.4 | 816.2  | 25.4  | 14.7  | 9.8   | 7.5   | 6.3   | 5.4   | 3.7   | 2.8   | 2.8   |
| 63°   | 1578.7 | 792.5  | 24.5  | 14.0  | 9.1   | 7.0   | 5.8   | 4.9   | 3.3   | 2.6   | 2.3   |
| 65°   | 1439.1 | 688.8  | 20.0  | 11.2  | 7.2   | 4.9   | 4.0   | 3.5   | 2.3   | 1.2   | 0.9   |
| 67.5° | 1142.8 | 526.9  | 15.8  | 8.4   | 5.1   | 3.5   | 2.3   | 2.1   | 0.7   | 0.0   | 0.0   |
| 70°   | 772.7  | 340.3  | 12.3  | 6.1   | 3.5   | 2.1   | 1.2   | 0.9   | 0.2   | 0.0   | 0.0   |
| 72.5° | 403.0  | 174.5  | 9.6   | 4.4   | 2.1   | 1.4   | 0.7   | 0.2   | 0.0   | 0.0   | 0.0   |
| 75°   | 142.6  | 59.4   | 7.0   | 2.8   | 1.4   | 0.7   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 43.1   | 22.1   | 4.4   | 2.1   | 0.9   | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 15.1   | 8.2    | 2.6   | 1.4   | 0.7   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 7.5    | 4.0    | 1.6   | 1.2   | 0.7   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 4.2    | 2.6    | 1.4   | 1.2   | 0.7   | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 3.0    | 1.9    | 1.4   | 1.2   | 0.9   | 0.5   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   |
| 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)