

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: P450258

Luminaire Tested: **GALN-SA1A-740-U-SL4-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P450258  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA1A-740-U-SL4-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT  
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3806 lumens  
Efficiency: N/A  
Efficacy: 115.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

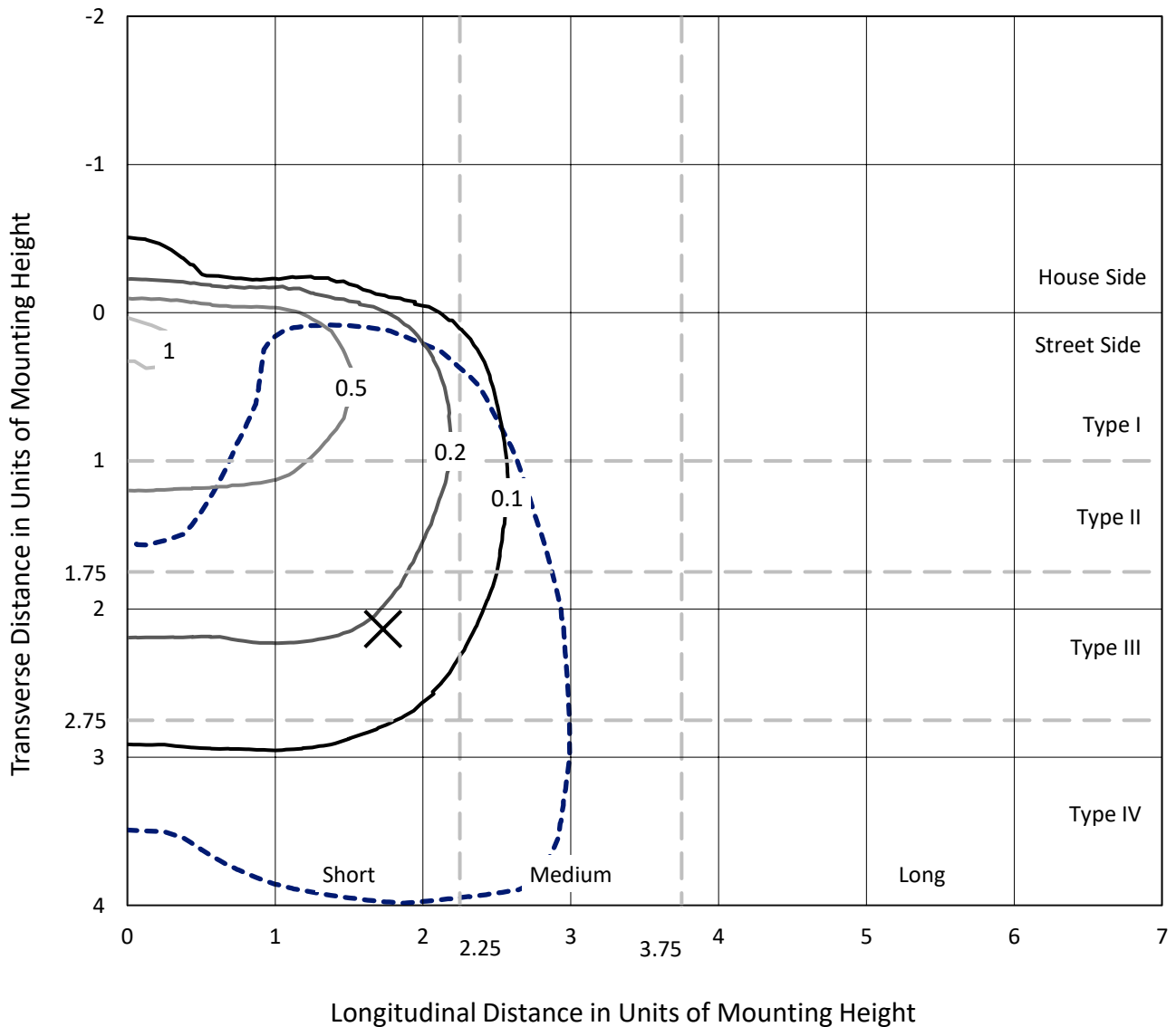
Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

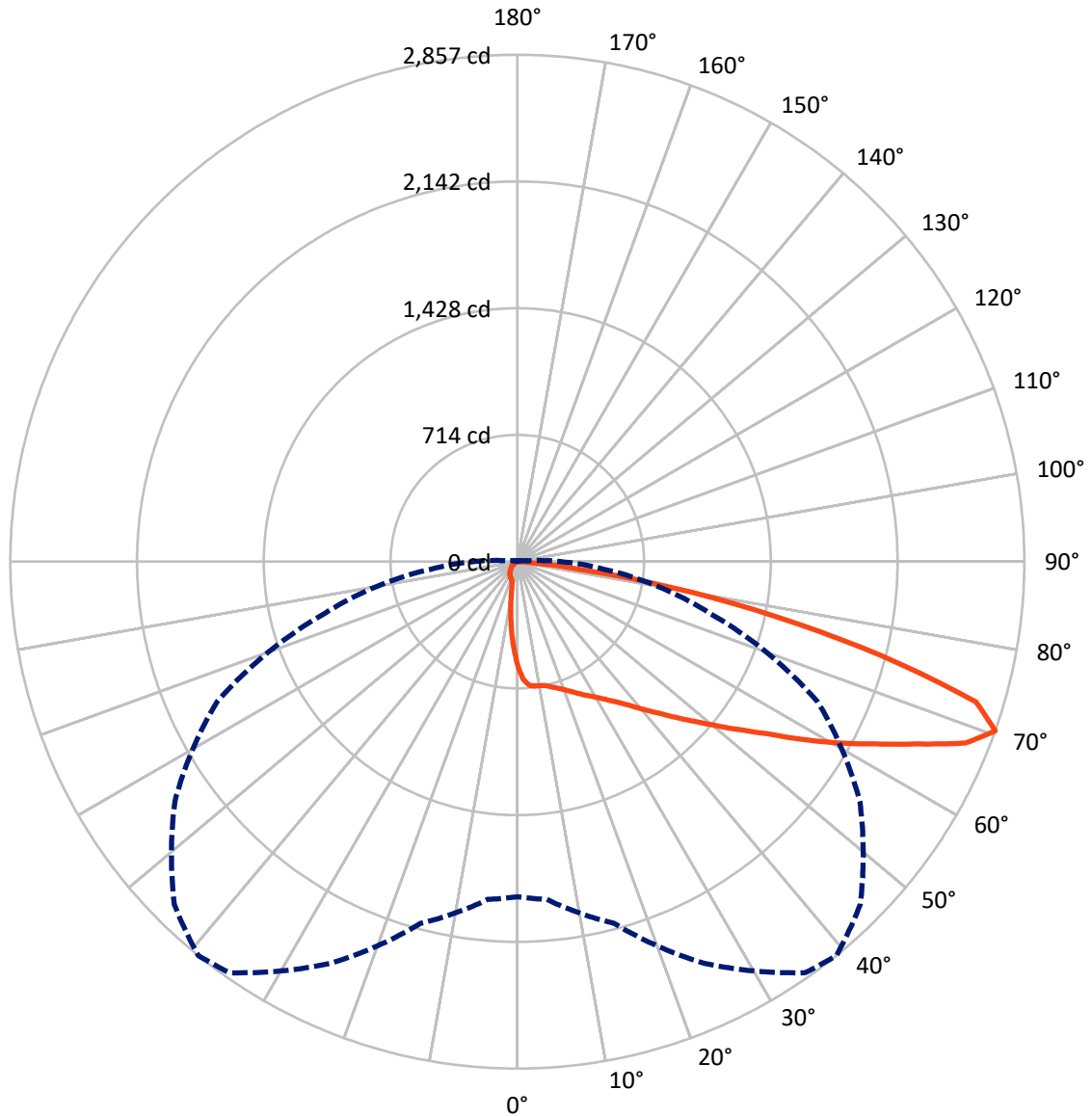
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 248.2    | 0.0    | 248.2  |
|                    | % Fixture | 6.5      | 0.0    | 6.5    |
| <b>Street Side</b> | Lumens    | 3557.8   | 0.0    | 3557.8 |
|                    | % Fixture | 93.5     | 0.0    | 93.5   |
| <b>Total</b>       | Lumens    | 3806.0   | 0.0    | 3806.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 50.7   | 1.3       |
| 10°-20°   | 131.6  | 3.5       |
| 20°-30°   | 220.5  | 5.8       |
| 30°-40°   | 342.0  | 9.0       |
| 40°-50°   | 542.0  | 14.2      |
| 50°-60°   | 794.4  | 20.9      |
| 60°-70°   | 1018.3 | 26.8      |
| 70°-80°   | 639.9  | 16.8      |
| 80°-90°   | 66.7   | 1.8       |
| 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°    | 3806.0 | 100.0     |
| 0°-180°   | 3806.0 | 100.0     |

**Coefficient of Utilization**



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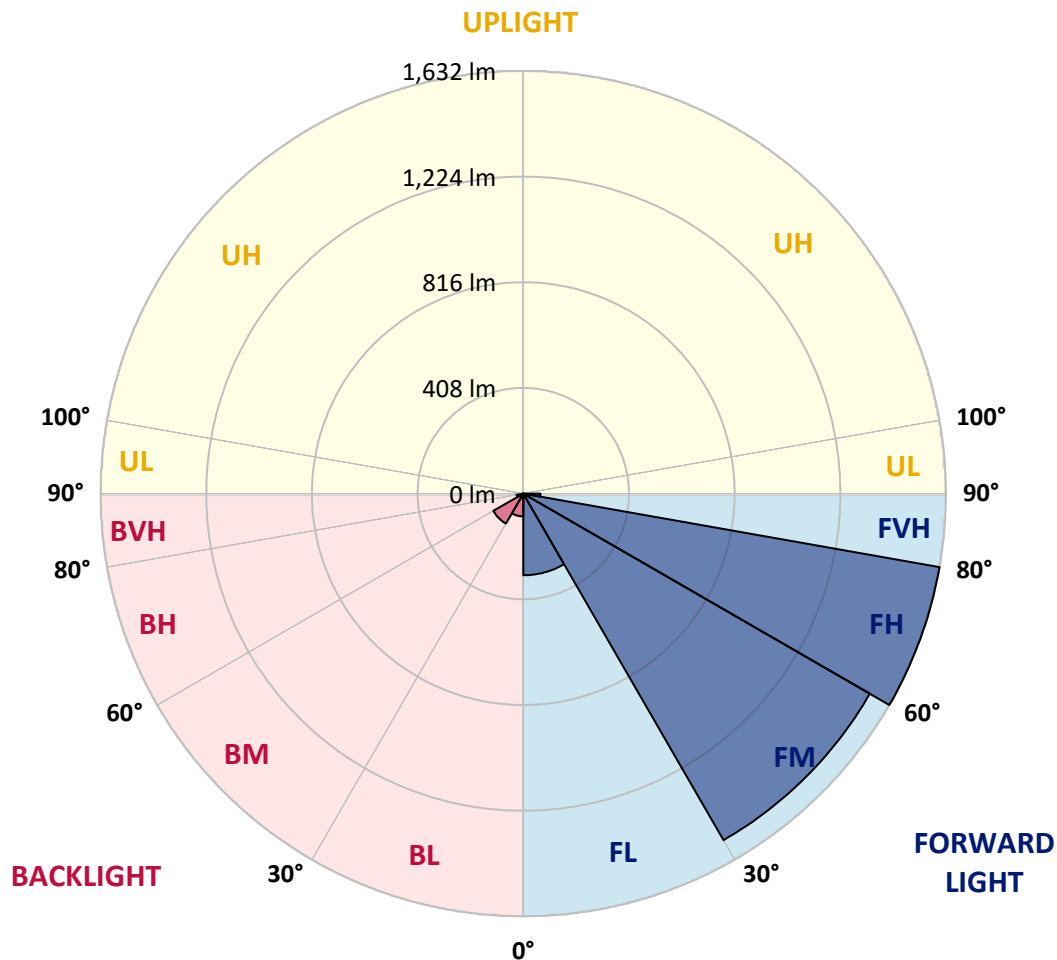
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 314.9  | 8.3       |                         |      |         |
| FM (30°-60°)   | 1544.8 | 40.6      |                         |      |         |
| FH (60°-80°)   | 1631.9 | 42.9      |                         |      | G1/1800 |
| FVH (80°-90°)  | 66.2   | 1.7       |                         |      | G1/100  |
| BL (0°-30°)    | 87.9   | 2.3       | B0/110                  |      |         |
| BM (30°-60°)   | 133.6  | 3.5       | B0/220                  |      |         |
| BH (60°-80°)   | 26.2   | 0.7       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 0.5    | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 39°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  | 593.9  |
| 2.5°  | 686.2  | 683.9  | 680.8  | 677.2  | 667.0  | 665.2  | 659.1  | 646.0  | 630.4  | 617.7  | 600.0  |
| 5°    | 718.7  | 720.0  | 717.7  | 711.3  | 703.8  | 699.5  | 691.8  | 671.6  | 651.4  | 625.6  | 596.7  |
| 7.5°  | 726.1  | 728.7  | 725.8  | 719.7  | 712.5  | 707.9  | 701.8  | 684.4  | 660.9  | 631.5  | 591.8  |
| 10°   | 725.3  | 728.4  | 726.6  | 721.0  | 715.1  | 710.7  | 704.1  | 690.3  | 671.4  | 640.4  | 593.4  |
| 12.5° | 724.0  | 728.1  | 727.9  | 725.1  | 720.2  | 716.9  | 712.8  | 700.5  | 682.9  | 653.5  | 601.8  |
| 15°   | 720.5  | 725.6  | 730.2  | 732.5  | 732.7  | 732.7  | 727.6  | 714.6  | 697.7  | 670.6  | 612.8  |
| 17.5° | 722.0  | 727.9  | 739.4  | 746.0  | 750.6  | 750.1  | 744.8  | 730.7  | 712.0  | 688.2  | 624.3  |
| 20°   | 731.5  | 739.4  | 755.5  | 768.8  | 773.4  | 771.9  | 764.7  | 748.3  | 727.1  | 703.3  | 635.6  |
| 22.5° | 754.7  | 761.9  | 782.1  | 797.7  | 801.0  | 796.9  | 786.7  | 764.5  | 745.3  | 719.7  | 649.1  |
| 25°   | 789.5  | 798.0  | 816.6  | 828.4  | 828.4  | 826.1  | 811.8  | 785.7  | 765.7  | 742.5  | 666.8  |
| 27.5° | 831.7  | 838.9  | 857.3  | 867.8  | 861.6  | 855.0  | 840.7  | 809.2  | 790.0  | 771.1  | 688.0  |
| 30°   | 874.4  | 879.0  | 898.5  | 903.1  | 896.7  | 888.2  | 872.9  | 841.4  | 824.6  | 810.0  | 718.7  |
| 32.5° | 914.8  | 924.8  | 940.9  | 939.9  | 931.2  | 927.1  | 913.1  | 879.5  | 870.1  | 868.5  | 761.6  |
| 35°   | 955.3  | 962.9  | 977.2  | 980.8  | 973.2  | 972.4  | 962.2  | 937.3  | 937.6  | 947.6  | 828.7  |
| 37.5° | 990.0  | 996.9  | 1013.8 | 1021.7 | 1023.3 | 1027.1 | 1023.0 | 1006.7 | 1029.9 | 1057.3 | 917.4  |
| 40°   | 1019.2 | 1028.9 | 1050.4 | 1064.2 | 1080.1 | 1094.1 | 1094.9 | 1098.5 | 1145.3 | 1192.3 | 1033.3 |
| 42.5° | 1042.0 | 1055.5 | 1086.7 | 1112.3 | 1148.6 | 1166.5 | 1180.8 | 1200.5 | 1279.3 | 1349.6 | 1169.8 |
| 45°   | 1071.6 | 1087.2 | 1126.1 | 1166.2 | 1223.0 | 1252.4 | 1272.4 | 1325.1 | 1436.8 | 1532.7 | 1310.0 |
| 47.5° | 1120.7 | 1128.9 | 1168.6 | 1227.1 | 1301.8 | 1343.7 | 1382.6 | 1462.4 | 1605.9 | 1691.8 | 1426.6 |
| 50°   | 1183.9 | 1189.3 | 1219.2 | 1300.5 | 1397.2 | 1452.4 | 1523.3 | 1617.1 | 1781.3 | 1823.8 | 1492.6 |
| 52.5° | 1253.7 | 1255.5 | 1278.0 | 1381.3 | 1504.1 | 1573.7 | 1653.0 | 1768.8 | 1924.3 | 1917.9 | 1536.3 |
| 55°   | 1334.8 | 1332.2 | 1351.4 | 1469.1 | 1630.7 | 1710.2 | 1802.6 | 1924.1 | 2048.4 | 1984.7 | 1561.4 |
| 57.5° | 1427.6 | 1420.7 | 1439.4 | 1585.4 | 1792.9 | 1888.0 | 1981.9 | 2058.1 | 2144.5 | 2040.7 | 1573.4 |
| 60°   | 1524.8 | 1511.0 | 1533.3 | 1716.1 | 1983.9 | 2074.2 | 2152.2 | 2172.7 | 2245.8 | 2085.2 | 1552.7 |
| 62.5° | 1602.3 | 1602.6 | 1644.0 | 1855.3 | 2180.3 | 2259.4 | 2300.8 | 2319.2 | 2333.0 | 2075.5 | 1443.7 |
| 65°   | 1723.3 | 1727.4 | 1793.6 | 2048.4 | 2407.7 | 2476.2 | 2504.6 | 2444.8 | 2336.8 | 1954.7 | 1280.1 |
| 67.5° | 1848.1 | 1861.1 | 1982.4 | 2314.3 | 2670.4 | 2725.6 | 2689.0 | 2469.1 | 2232.5 | 1679.3 | 970.6  |
| 70°   | 1888.8 | 1910.2 | 2110.0 | 2497.5 | 2827.9 | 2856.5 | 2732.8 | 2355.8 | 1866.3 | 1122.8 | 488.5  |
| 72.5° | 1730.7 | 1765.5 | 2036.6 | 2430.7 | 2727.4 | 2702.6 | 2445.0 | 1975.7 | 1186.5 | 426.3  | 149.1  |
| 75°   | 1220.5 | 1235.8 | 1692.6 | 2016.4 | 2193.6 | 2123.3 | 1859.9 | 1273.7 | 488.0  | 119.7  | 51.2   |
| 77.5° | 630.2  | 622.8  | 1006.7 | 1337.9 | 1564.5 | 1491.6 | 1217.9 | 659.3  | 184.9  | 49.9   | 31.7   |
| 80°   | 325.8  | 331.2  | 435.6  | 701.0  | 955.0  | 878.8  | 649.4  | 305.6  | 98.5   | 27.6   | 24.3   |
| 82.5° | 182.6  | 171.4  | 250.4  | 306.1  | 446.6  | 350.1  | 249.1  | 216.4  | 43.0   | 16.6   | 23.0   |
| 85°   | 33.2   | 34.8   | 137.3  | 165.5  | 155.0  | 98.5   | 80.3   | 144.5  | 12.5   | 9.2    | 16.1   |
| 87.5° | 0.5    | 0.5    | 26.6   | 47.6   | 30.2   | 13.8   | 25.3   | 20.7   | 2.6    | 3.6    | 2.8    |
| 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°    | 593.9  | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 | 593.9 |
| 2.5°  | 591.1  | 581.3 | 563.2 | 545.3 | 522.5 | 503.8 | 491.3 | 478.3 | 465.0 | 466.0 | 469.1 |
| 5°    | 580.8  | 563.9 | 528.1 | 490.3 | 454.0 | 421.2 | 389.0 | 360.1 | 348.3 | 337.6 | 338.1 |
| 7.5°  | 570.6  | 546.8 | 494.4 | 435.0 | 380.1 | 324.3 | 283.9 | 250.6 | 233.0 | 219.7 | 215.9 |
| 10°   | 566.0  | 534.5 | 463.4 | 381.8 | 303.8 | 243.0 | 191.1 | 163.9 | 143.0 | 136.3 | 138.1 |
| 12.5° | 568.0  | 528.4 | 435.6 | 333.8 | 240.9 | 169.3 | 133.0 | 119.2 | 114.6 | 113.8 | 113.3 |
| 15°   | 571.9  | 524.0 | 408.2 | 280.6 | 177.0 | 125.8 | 111.8 | 109.2 | 108.7 | 108.2 | 108.4 |
| 17.5° | 577.0  | 520.2 | 379.0 | 230.7 | 135.8 | 110.0 | 105.9 | 104.6 | 104.3 | 104.3 | 104.3 |
| 20°   | 582.1  | 515.9 | 346.6 | 186.2 | 113.3 | 103.8 | 101.3 | 100.5 | 100.3 | 100.3 | 100.0 |
| 22.5° | 588.0  | 512.0 | 313.6 | 146.3 | 104.3 | 99.5  | 97.2  | 96.7  | 96.4  | 96.2  | 96.2  |
| 25°   | 596.4  | 507.2 | 278.5 | 119.7 | 98.7  | 95.4  | 93.1  | 92.6  | 92.3  | 91.3  | 91.6  |
| 27.5° | 607.7  | 503.6 | 242.5 | 103.3 | 93.6  | 90.3  | 88.7  | 88.0  | 87.5  | 86.7  | 87.0  |
| 30°   | 623.0  | 500.5 | 204.1 | 94.4  | 87.7  | 84.9  | 83.4  | 82.9  | 82.4  | 81.6  | 81.6  |
| 32.5° | 649.6  | 501.8 | 163.7 | 87.2  | 82.4  | 79.0  | 77.5  | 77.0  | 76.5  | 75.7  | 75.7  |
| 35°   | 689.5  | 509.2 | 130.9 | 81.1  | 76.0  | 72.6  | 71.1  | 71.1  | 70.3  | 69.3  | 69.1  |
| 37.5° | 754.7  | 528.1 | 105.1 | 75.2  | 69.8  | 66.8  | 65.0  | 64.5  | 63.7  | 62.1  | 61.9  |
| 40°   | 831.7  | 557.5 | 88.5  | 69.3  | 64.2  | 61.1  | 59.6  | 58.1  | 56.0  | 54.5  | 54.2  |
| 42.5° | 928.4  | 587.7 | 76.7  | 63.4  | 58.8  | 56.0  | 54.2  | 51.7  | 48.6  | 46.5  | 46.3  |
| 45°   | 1029.2 | 615.4 | 68.8  | 58.1  | 53.7  | 51.4  | 49.4  | 45.3  | 41.4  | 38.9  | 38.6  |
| 47.5° | 1104.4 | 620.5 | 62.4  | 52.9  | 49.4  | 47.1  | 44.2  | 39.1  | 34.0  | 31.7  | 30.9  |
| 50°   | 1139.9 | 595.7 | 55.8  | 47.8  | 45.0  | 42.5  | 38.9  | 33.0  | 27.4  | 24.6  | 24.0  |
| 52.5° | 1152.4 | 552.7 | 50.4  | 43.2  | 40.7  | 37.6  | 33.2  | 26.6  | 21.5  | 18.7  | 18.4  |
| 55°   | 1147.3 | 498.5 | 45.5  | 38.9  | 35.6  | 32.0  | 27.6  | 21.2  | 15.9  | 13.6  | 13.0  |
| 57.5° | 1120.5 | 429.4 | 40.7  | 34.5  | 30.4  | 26.9  | 22.0  | 15.9  | 10.7  | 8.7   | 8.4   |
| 60°   | 1048.1 | 335.3 | 35.8  | 29.7  | 25.8  | 22.0  | 17.4  | 11.3  | 6.6   | 4.9   | 4.9   |
| 62.5° | 925.8  | 248.9 | 31.2  | 24.8  | 21.7  | 17.6  | 12.3  | 7.2   | 3.6   | 2.6   | 2.3   |
| 65°   | 773.7  | 183.6 | 26.1  | 21.0  | 18.2  | 13.8  | 8.7   | 4.3   | 1.8   | 0.8   | 0.5   |
| 67.5° | 539.9  | 113.3 | 21.7  | 17.1  | 14.8  | 10.0  | 5.4   | 1.8   | 0.8   | 0.0   | 0.0   |
| 70°   | 245.3  | 54.0  | 16.6  | 13.0  | 11.3  | 7.2   | 2.8   | 1.0   | 0.5   | 0.0   | 0.0   |
| 72.5° | 76.2   | 28.4  | 11.8  | 9.5   | 7.7   | 4.6   | 1.5   | 0.8   | 0.5   | 0.0   | 0.0   |
| 75°   | 35.3   | 18.2  | 7.4   | 5.1   | 4.3   | 2.3   | 1.0   | 0.5   | 0.3   | 0.0   | 0.0   |
| 77.5° | 26.3   | 14.1  | 4.3   | 2.8   | 2.3   | 1.5   | 0.8   | 0.5   | 0.3   | 0.0   | 0.0   |
| 80°   | 23.0   | 7.2   | 2.6   | 1.8   | 1.3   | 1.0   | 0.5   | 0.3   | 0.0   | 0.0   | 0.0   |
| 82.5° | 20.7   | 3.6   | 1.5   | 1.0   | 0.8   | 0.5   | 0.3   | 0.3   | 0.0   | 0.0   | 0.0   |
| 85°   | 11.3   | 2.0   | 1.0   | 0.8   | 0.5   | 0.3   | 0.3   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 2.0    | 1.0   | 0.8   | 0.5   | 0.5   | 0.3   | 0.3   | 0.3   | 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)