

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: STREETWORKS

Report Number: P322385

Luminaire Tested: **GAN-SA1A-830-U-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P322385  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA1A-830-U-T3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(1) 80 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: 2826 lumens  
Efficiency: N/A  
Efficacy: 83.1 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

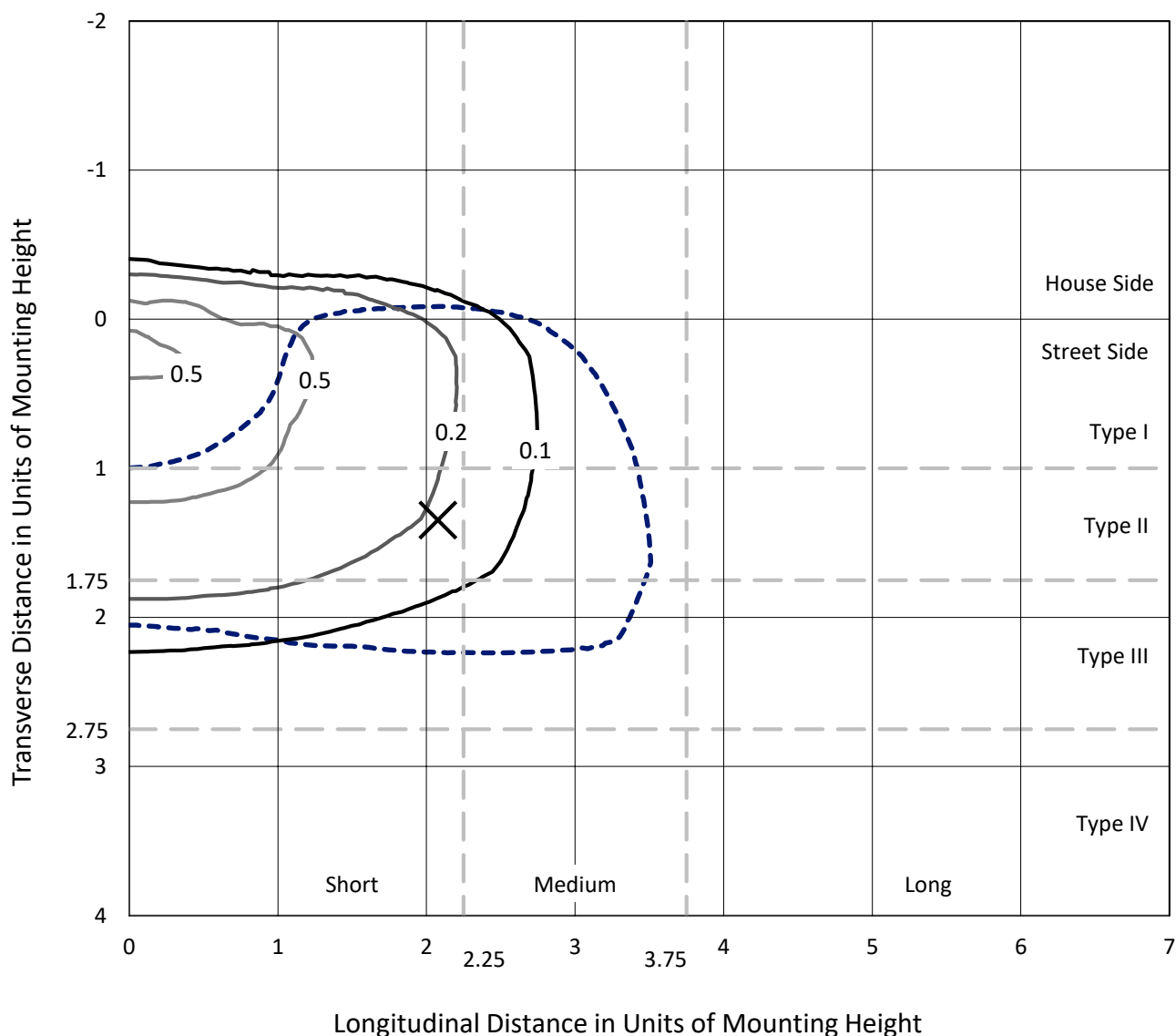
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

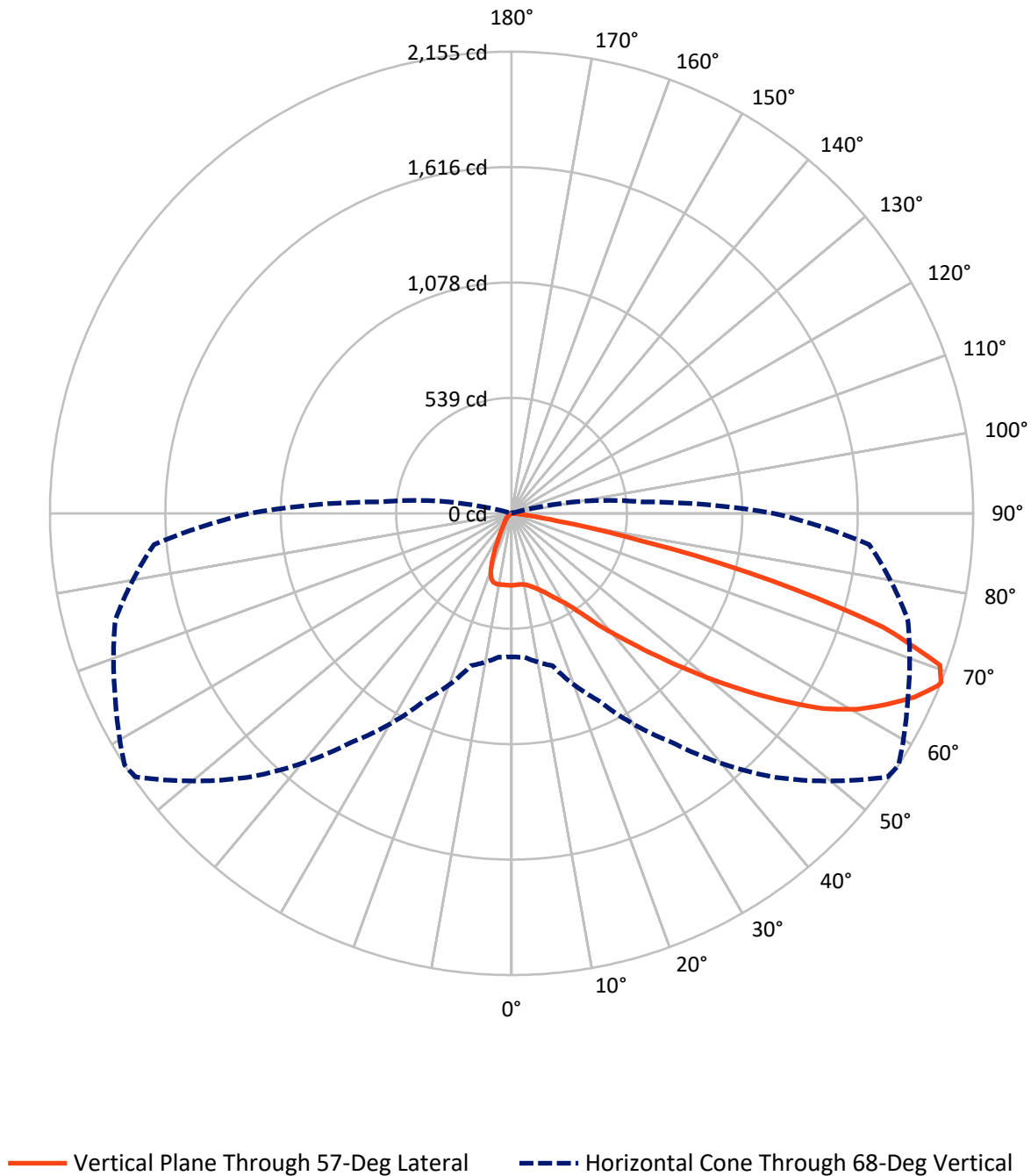
× Max cd  
 --- 1/2 Max cd



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

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 309.9    | 0.0    | 309.9  |
|                    | % Fixture | 11.0     | 0.0    | 11.0   |
| <b>Street Side</b> | Lumens    | 2516.1   | 0.0    | 2516.1 |
|                    | % Fixture | 89.0     | 0.0    | 89.0   |
| <b>Total</b>       | Lumens    | 2826.0   | 0.0    | 2826.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 31.4   | 1.1       |
| 10°-20°   | 87.1   | 3.1       |
| 20°-30°   | 150.2  | 5.3       |
| 30°-40°   | 259.3  | 9.2       |
| 40°-50°   | 443.5  | 15.7      |
| 50°-60°   | 709.6  | 25.1      |
| 60°-70°   | 819.9  | 29.0      |
| 70°-80°   | 313.3  | 11.1      |
| 80°-90°   | 11.7   | 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°    | 2826.0 | 100.0     |
| 0°-180°   | 2826.0 | 100.0     |

**Coefficient of Utilization**



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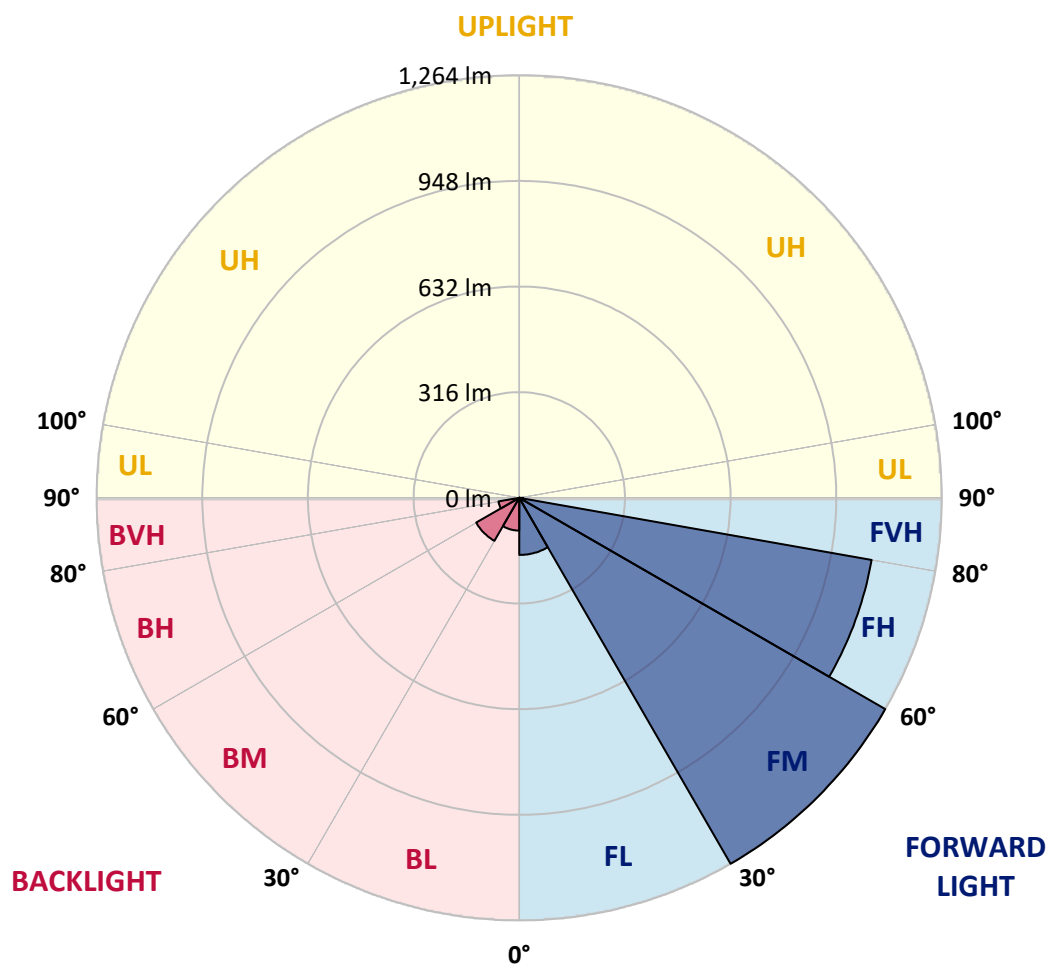
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 170.8  | 6.0       |                         |      |         |
| FM   | (30°-60°)   | 1263.8 | 44.7      |                         |      |         |
| FH   | (60°-80°)   | 1070.0 | 37.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 11.5   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 97.9   | 3.5       | B0/110                  |      |         |
| BM   | (30°-60°)   | 148.6  | 5.3       | B0/220                  |      |         |
| BH   | (60°-80°)   | 63.1   | 2.2       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 0.2    | 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°    | 57°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  | 335.8  |
| 2.5°  | 327.9  | 329.4  | 330.5  | 331.1  | 331.9  | 333.7  | 334.2  | 335.0  | 335.4  | 335.4  | 336.3  |
| 5°    | 315.0  | 316.6  | 318.8  | 320.7  | 324.4  | 329.3  | 332.7  | 334.1  | 336.5  | 338.6  | 339.8  |
| 7.5°  | 302.9  | 304.8  | 307.5  | 311.9  | 318.3  | 326.0  | 333.3  | 335.1  | 339.8  | 344.4  | 346.6  |
| 10°   | 295.2  | 296.7  | 300.1  | 306.4  | 314.8  | 325.6  | 335.8  | 338.1  | 346.1  | 353.7  | 358.0  |
| 12.5° | 292.5  | 293.8  | 297.5  | 304.5  | 315.0  | 327.7  | 341.7  | 345.0  | 356.8  | 367.9  | 373.9  |
| 15°   | 296.4  | 296.7  | 300.5  | 307.2  | 317.5  | 332.6  | 351.4  | 355.4  | 370.3  | 384.7  | 392.2  |
| 17.5° | 311.3  | 310.1  | 312.2  | 315.1  | 323.2  | 339.1  | 361.7  | 367.7  | 387.5  | 404.5  | 411.6  |
| 20°   | 348.8  | 348.8  | 344.2  | 336.2  | 336.3  | 349.3  | 375.6  | 382.4  | 406.6  | 426.3  | 432.7  |
| 22.5° | 412.8  | 411.6  | 402.5  | 382.8  | 364.8  | 366.8  | 392.6  | 401.4  | 429.6  | 450.6  | 452.7  |
| 25°   | 489.7  | 488.3  | 474.2  | 446.6  | 415.3  | 395.1  | 415.6  | 425.7  | 457.0  | 475.6  | 471.2  |
| 27.5° | 571.3  | 570.1  | 556.2  | 521.8  | 477.3  | 440.3  | 443.0  | 452.6  | 484.9  | 503.2  | 489.2  |
| 30°   | 650.2  | 650.6  | 636.9  | 601.6  | 551.2  | 497.9  | 477.7  | 483.3  | 512.1  | 530.6  | 510.6  |
| 32.5° | 725.3  | 725.9  | 714.0  | 674.5  | 627.5  | 564.8  | 525.8  | 524.4  | 543.6  | 561.9  | 538.9  |
| 35°   | 792.3  | 793.6  | 785.5  | 754.9  | 705.0  | 639.4  | 588.2  | 584.7  | 588.4  | 609.1  | 582.3  |
| 37.5° | 856.8  | 857.6  | 851.5  | 825.7  | 784.0  | 721.3  | 667.1  | 662.1  | 654.4  | 670.3  | 639.7  |
| 40°   | 927.5  | 925.5  | 918.4  | 895.0  | 859.2  | 811.8  | 751.8  | 743.2  | 729.7  | 743.9  | 715.0  |
| 42.5° | 993.2  | 991.0  | 992.2  | 965.7  | 935.5  | 904.8  | 850.5  | 835.8  | 827.9  | 844.3  | 807.5  |
| 45°   | 1075.4 | 1074.2 | 1078.2 | 1055.2 | 1030.8 | 1008.5 | 963.7  | 947.7  | 944.2  | 963.3  | 919.4  |
| 47.5° | 1156.5 | 1159.5 | 1171.9 | 1162.1 | 1152.3 | 1132.6 | 1083.6 | 1076.4 | 1078.5 | 1101.6 | 1037.3 |
| 50°   | 1224.2 | 1227.6 | 1261.7 | 1272.9 | 1287.2 | 1275.7 | 1226.6 | 1222.1 | 1230.6 | 1251.4 | 1164.3 |
| 52.5° | 1273.1 | 1280.1 | 1322.5 | 1374.2 | 1426.3 | 1434.1 | 1385.0 | 1381.0 | 1392.4 | 1395.6 | 1262.4 |
| 55°   | 1307.0 | 1313.3 | 1361.3 | 1455.9 | 1562.0 | 1595.4 | 1564.9 | 1549.4 | 1547.3 | 1515.6 | 1365.5 |
| 57.5° | 1313.0 | 1312.3 | 1381.3 | 1508.6 | 1668.3 | 1754.5 | 1735.3 | 1720.0 | 1676.2 | 1626.5 | 1483.8 |
| 60°   | 1279.1 | 1282.9 | 1363.0 | 1526.9 | 1735.1 | 1874.9 | 1876.4 | 1856.6 | 1788.3 | 1734.3 | 1598.4 |
| 62.5° | 1174.6 | 1190.3 | 1271.2 | 1479.0 | 1734.3 | 1923.4 | 1979.8 | 1964.7 | 1883.1 | 1822.7 | 1714.7 |
| 65°   | 1005.1 | 1010.8 | 1087.9 | 1314.6 | 1617.1 | 1903.1 | 2072.9 | 2067.3 | 1968.5 | 1908.5 | 1774.4 |
| 67.5° | 734.0  | 721.9  | 802.8  | 1035.2 | 1369.1 | 1784.7 | 2139.8 | 2146.8 | 2034.3 | 1926.1 | 1710.8 |
| 68°   | 669.9  | 673.5  | 736.5  | 966.1  | 1304.2 | 1742.9 | 2144.2 | 2155.0 | 2040.9 | 1914.6 | 1676.1 |
| 70°   | 399.3  | 406.2  | 462.5  | 665.2  | 992.2  | 1506.2 | 2096.6 | 2121.3 | 2001.9 | 1796.1 | 1449.7 |
| 72.5° | 102.0  | 110.2  | 163.4  | 297.7  | 566.7  | 1061.3 | 1769.9 | 1811.7 | 1738.1 | 1457.1 | 978.7  |
| 75°   | 42.0   | 44.1   | 58.4   | 98.1   | 211.1  | 478.1  | 1166.6 | 1256.1 | 1204.9 | 872.3  | 442.3  |
| 77.5° | 29.0   | 30.5   | 37.5   | 54.4   | 91.4   | 162.1  | 571.9  | 636.6  | 573.5  | 297.7  | 96.5   |
| 80°   | 20.8   | 22.0   | 26.9   | 36.2   | 52.5   | 57.9   | 186.4  | 215.5  | 171.2  | 65.3   | 23.9   |
| 82.5° | 12.4   | 13.4   | 20.0   | 25.8   | 31.9   | 27.7   | 46.4   | 52.6   | 49.6   | 32.5   | 10.7   |
| 85°   | 6.1    | 7.2    | 13.5   | 18.4   | 17.2   | 11.6   | 14.2   | 15.8   | 19.5   | 19.8   | 5.7    |
| 87.5° | 0.4    | 0.8    | 7.9    | 11.1   | 4.8    | 2.7    | 4.1    | 5.1    | 6.9    | 9.8    | 2.4    |
| 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°    | 335.8  | 335.8 | 335.8 | 335.8 | 335.8 | 335.8 | 335.8 | 335.8 | 335.8 | 335.8 | 335.8 |
| 2.5°  | 336.7  | 336.9 | 335.9 | 335.5 | 335.8 | 334.2 | 333.5 | 333.8 | 333.8 | 334.2 | 333.5 |
| 5°    | 340.1  | 340.1 | 338.5 | 336.3 | 335.1 | 332.1 | 330.1 | 329.5 | 329.1 | 328.9 | 328.3 |
| 7.5°  | 347.3  | 346.5 | 343.7 | 339.0 | 335.0 | 328.3 | 323.2 | 320.6 | 319.2 | 318.7 | 318.3 |
| 10°   | 358.9  | 357.5 | 352.8 | 344.1 | 334.9 | 323.0 | 311.9 | 304.0 | 297.5 | 294.8 | 293.2 |
| 12.5° | 374.6  | 372.4 | 364.5 | 350.1 | 333.9 | 312.0 | 288.0 | 264.8 | 243.3 | 234.5 | 230.1 |
| 15°   | 392.6  | 389.5 | 377.1 | 355.2 | 328.5 | 287.3 | 235.0 | 194.6 | 164.8 | 153.5 | 148.7 |
| 17.5° | 410.9  | 406.9 | 388.1 | 358.4 | 312.0 | 236.1 | 164.9 | 124.5 | 104.6 | 99.3  | 97.4  |
| 20°   | 429.3  | 423.5 | 397.5 | 356.0 | 274.9 | 170.2 | 108.8 | 91.0  | 85.3  | 83.7  | 83.1  |
| 22.5° | 446.8  | 437.8 | 406.1 | 346.6 | 217.7 | 114.3 | 86.1  | 80.4  | 78.6  | 77.6  | 77.4  |
| 25°   | 462.1  | 449.4 | 413.6 | 317.8 | 154.1 | 86.3  | 77.5  | 75.6  | 73.2  | 71.5  | 71.6  |
| 27.5° | 476.4  | 461.0 | 418.1 | 270.2 | 102.8 | 73.8  | 71.8  | 69.2  | 64.8  | 62.3  | 62.3  |
| 30°   | 493.6  | 476.5 | 421.5 | 207.9 | 75.6  | 65.2  | 63.6  | 59.7  | 53.7  | 50.4  | 50.4  |
| 32.5° | 519.5  | 500.0 | 419.3 | 145.9 | 62.7  | 57.3  | 53.6  | 48.2  | 41.7  | 38.5  | 38.4  |
| 35°   | 559.2  | 536.4 | 404.1 | 95.7  | 55.3  | 49.8  | 43.8  | 37.3  | 31.5  | 28.9  | 28.7  |
| 37.5° | 612.7  | 585.0 | 369.9 | 68.4  | 49.6  | 42.9  | 35.7  | 28.5  | 24.2  | 22.4  | 22.3  |
| 40°   | 682.0  | 641.5 | 321.0 | 55.5  | 44.2  | 36.2  | 27.5  | 22.0  | 19.1  | 17.8  | 17.9  |
| 42.5° | 765.3  | 702.1 | 262.3 | 47.8  | 39.0  | 29.8  | 21.5  | 17.4  | 15.5  | 14.6  | 14.3  |
| 45°   | 857.7  | 761.8 | 200.8 | 42.6  | 33.8  | 24.1  | 16.8  | 13.8  | 12.3  | 11.8  | 11.8  |
| 47.5° | 959.4  | 819.9 | 147.0 | 38.1  | 28.2  | 18.6  | 13.5  | 11.2  | 10.0  | 9.6   | 9.5   |
| 50°   | 1051.8 | 860.3 | 106.0 | 33.3  | 23.1  | 14.7  | 11.0  | 9.4   | 8.6   | 8.0   | 8.0   |
| 52.5° | 1128.7 | 873.0 | 78.0  | 28.1  | 18.7  | 11.8  | 9.1   | 8.0   | 7.2   | 6.8   | 6.8   |
| 55°   | 1196.5 | 867.8 | 58.0  | 23.1  | 15.1  | 9.6   | 7.8   | 6.8   | 6.1   | 5.7   | 5.7   |
| 57.5° | 1261.4 | 850.9 | 43.3  | 18.8  | 12.2  | 7.8   | 6.5   | 5.7   | 5.1   | 4.8   | 4.8   |
| 60°   | 1314.5 | 822.9 | 32.2  | 15.2  | 9.8   | 6.3   | 5.5   | 4.7   | 4.1   | 3.7   | 3.7   |
| 62.5° | 1357.5 | 791.9 | 23.7  | 12.6  | 7.8   | 4.9   | 4.3   | 3.9   | 3.1   | 2.7   | 2.7   |
| 65°   | 1357.8 | 740.4 | 17.8  | 10.4  | 6.0   | 3.9   | 3.2   | 3.1   | 2.0   | 1.6   | 1.5   |
| 67.5° | 1259.6 | 638.3 | 13.6  | 9.0   | 4.7   | 2.9   | 2.4   | 2.5   | 1.1   | 0.7   | 0.5   |
| 68°   | 1223.9 | 612.4 | 12.8  | 8.8   | 4.4   | 2.8   | 2.3   | 2.5   | 0.9   | 0.5   | 0.4   |
| 70°   | 1031.9 | 487.2 | 10.3  | 8.6   | 3.9   | 2.1   | 1.9   | 2.5   | 0.8   | 0.4   | 0.3   |
| 72.5° | 660.0  | 282.8 | 7.6   | 6.8   | 2.9   | 1.6   | 1.2   | 2.3   | 0.8   | 0.3   | 0.1   |
| 75°   | 280.9  | 87.7  | 5.2   | 4.8   | 1.7   | 1.2   | 0.8   | 1.5   | 0.5   | 0.1   | 0.0   |
| 77.5° | 59.2   | 19.8  | 3.1   | 2.9   | 1.2   | 0.8   | 0.5   | 0.4   | 0.1   | 0.0   | 0.0   |
| 80°   | 15.2   | 5.7   | 1.6   | 1.5   | 0.7   | 0.4   | 0.3   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 4.8    | 2.3   | 0.9   | 0.7   | 0.3   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 2.4    | 1.3   | 0.5   | 0.3   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 1.3    | 0.4   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 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)