

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: INVUE

Report Number: P401065

Luminaire Tested: **ENT-SA1B-722-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401065  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1B-722-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2200K, 450mA 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: 1936 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B0 - U0 - G0

Input Watts (W): 25.4  
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: 25 FT

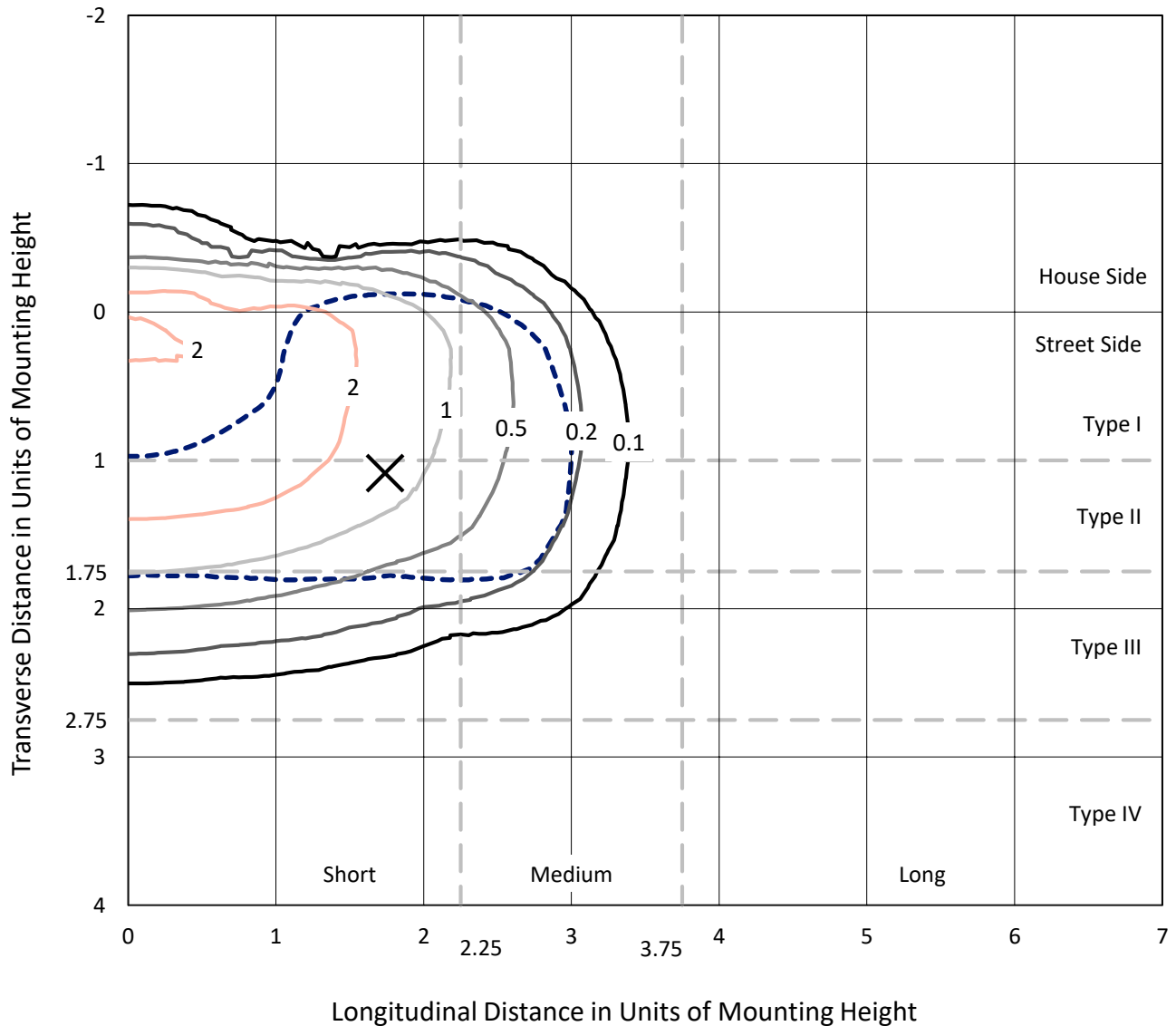


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

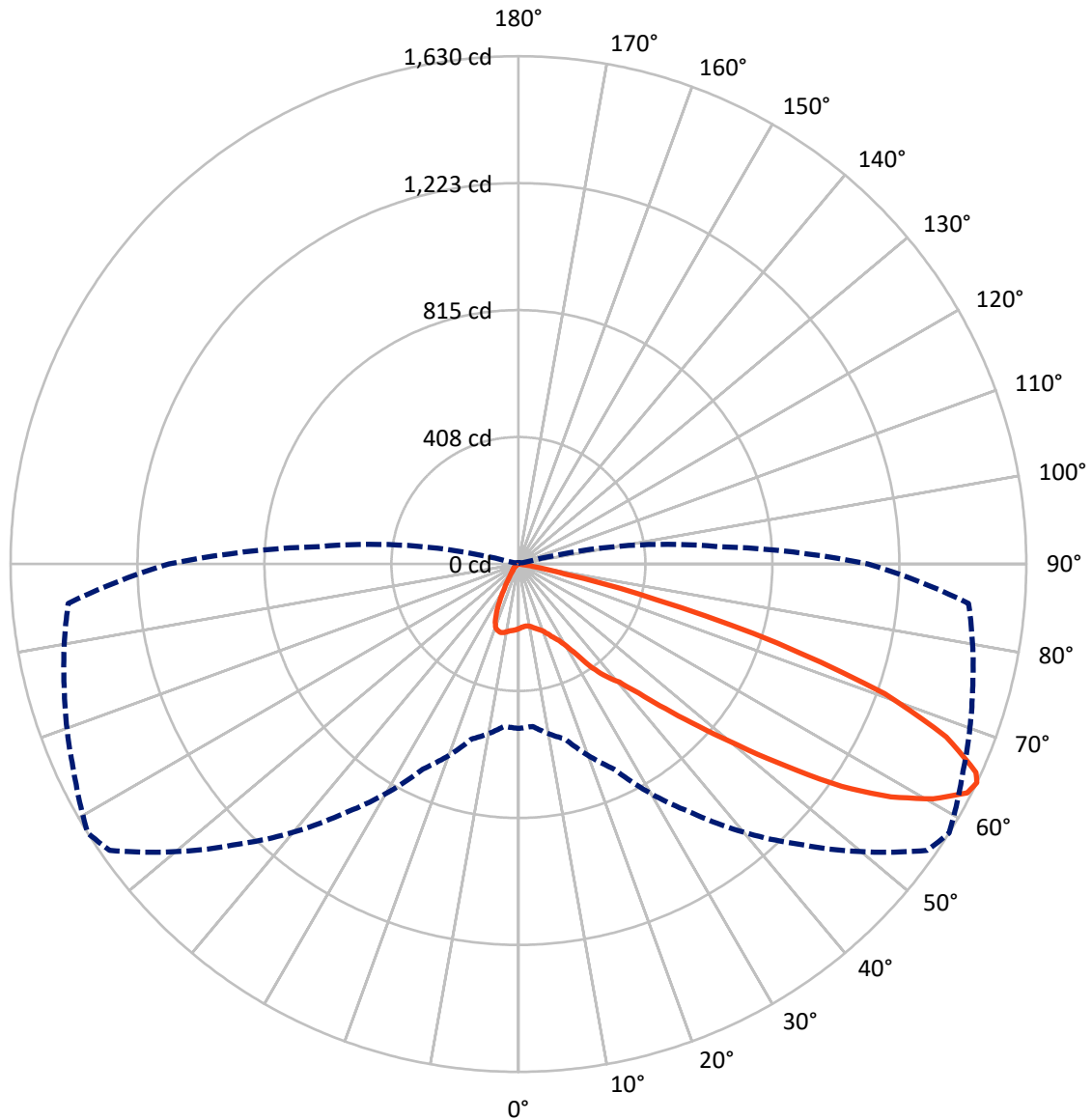


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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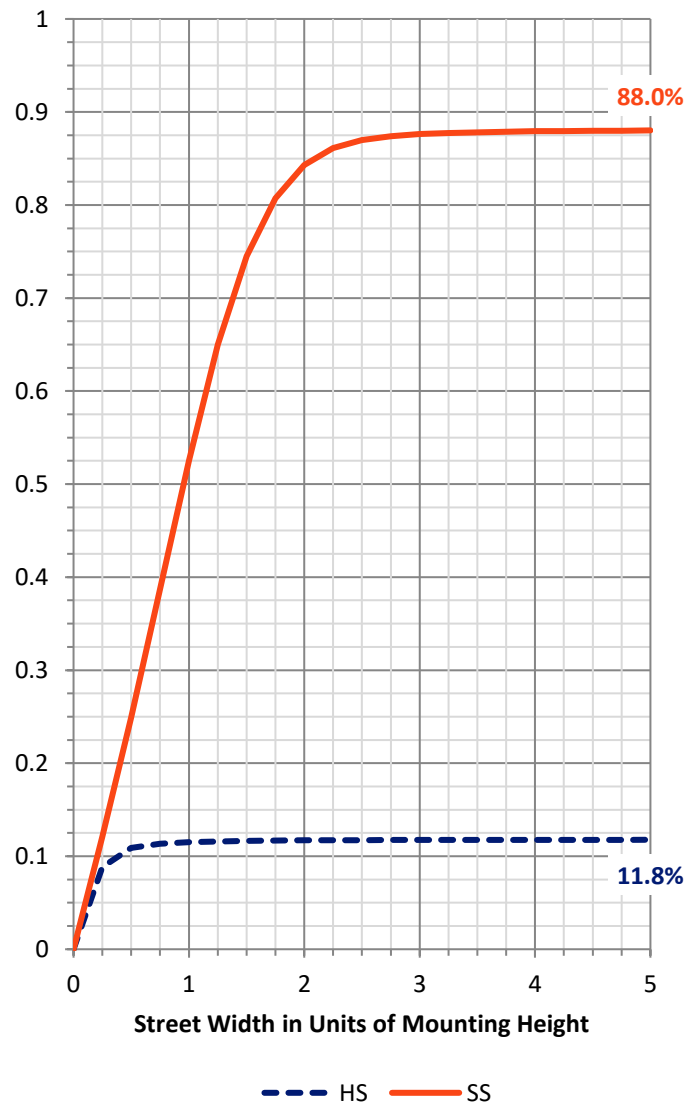
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 230.8    | 0.0    | 230.8  |
|                    | % Fixture | 11.9     | 0.0    | 11.9   |
| <b>Street Side</b> | Lumens    | 1705.2   | 0.0    | 1705.2 |
|                    | % Fixture | 88.1     | 0.0    | 88.1   |
| <b>Total</b>       | Lumens    | 1936.0   | 0.0    | 1936.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 19.6   | 1.0       |
| 10°-20°   | 57.1   | 3.0       |
| 20°-30°   | 102.6  | 5.3       |
| 30°-40°   | 179.9  | 9.3       |
| 40°-50°   | 329.0  | 17.0      |
| 50°-60°   | 562.8  | 29.1      |
| 60°-70°   | 545.9  | 28.2      |
| 70°-80°   | 135.2  | 7.0       |
| 80°-90°   | 3.8    | 0.2       |
| 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°    | 1936.0 | 100.0     |
| 0°-180°   | 1936.0 | 100.0     |



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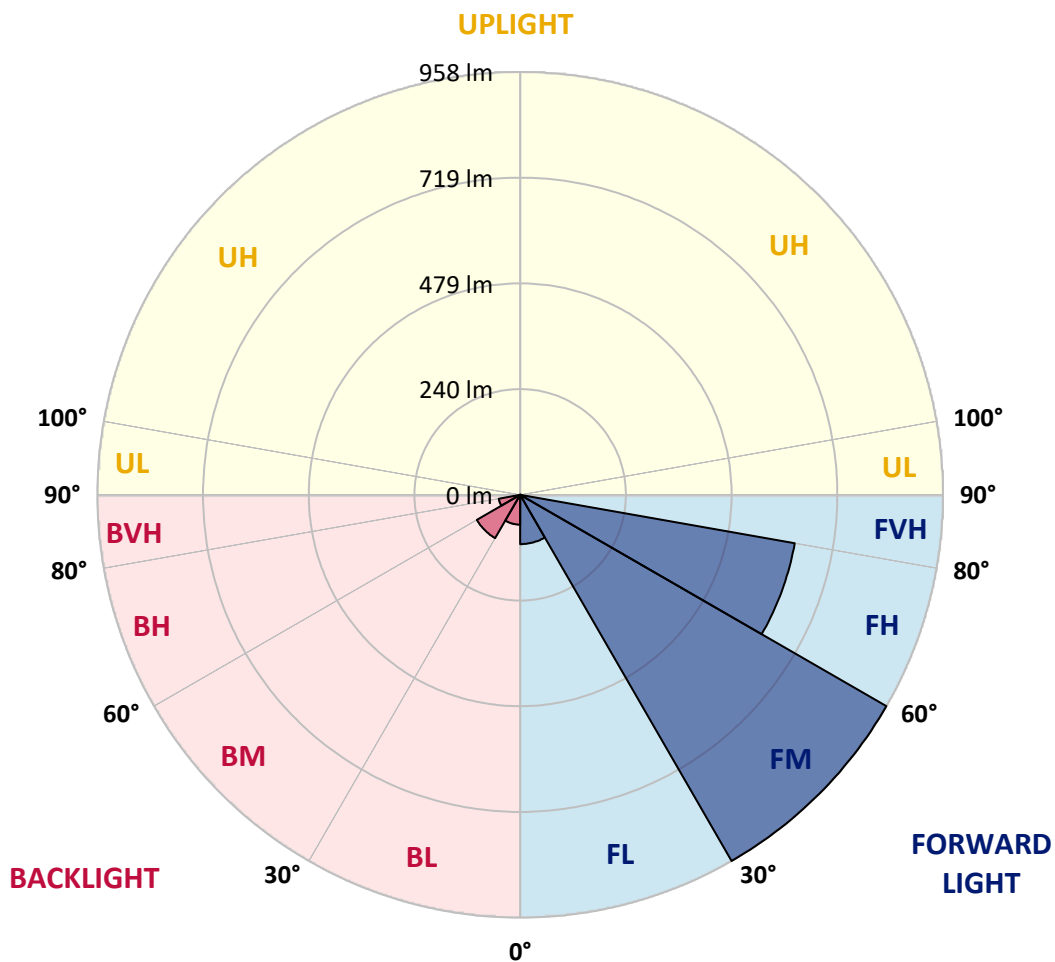
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|--------|-----------|-------------------------|------|--------|
|      |             |        |           | B                       | U    | G      |
| FL   | (0°-30°)    | 111.8  | 5.8       |                         |      |        |
| FM   | (30°-60°)   | 958.3  | 49.5      |                         |      |        |
| FH   | (60°-80°)   | 631.9  | 32.6      |                         |      | G0/660 |
| FVH  | (80°-90°)   | 3.3    | 0.2       |                         |      | G0/10  |
| BL   | (0°-30°)    | 67.6   | 3.5       | B0/110                  |      |        |
| BM   | (30°-60°)   | 113.4  | 5.9       | B0/220                  |      |        |
| BH   | (60°-80°)   | 49.3   | 2.5       | B0/110                  |      | G0/110 |
| BVH  | (80°-90°)   | 0.6    | 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-G0**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 58°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  | 207.4  |
| 2.5°  | 198.8  | 198.8  | 199.5  | 199.9  | 200.9  | 202.0  | 203.4  | 203.8  | 204.5  | 206.3  | 207.0  |
| 5°    | 188.0  | 188.4  | 189.1  | 190.9  | 193.4  | 196.3  | 199.9  | 200.9  | 203.8  | 207.4  | 209.9  |
| 7.5°  | 183.7  | 184.1  | 185.2  | 187.3  | 190.5  | 194.8  | 199.1  | 200.6  | 204.5  | 210.2  | 213.8  |
| 10°   | 183.0  | 183.0  | 184.5  | 187.7  | 191.6  | 197.0  | 201.6  | 203.4  | 208.8  | 215.6  | 221.3  |
| 12.5° | 183.0  | 183.0  | 184.8  | 188.8  | 193.4  | 200.2  | 206.7  | 209.2  | 215.3  | 223.9  | 231.0  |
| 15°   | 186.2  | 187.0  | 188.0  | 190.5  | 195.9  | 203.4  | 212.4  | 215.3  | 222.8  | 233.2  | 242.1  |
| 17.5° | 209.2  | 208.5  | 204.9  | 201.6  | 200.6  | 207.0  | 217.8  | 221.7  | 232.8  | 246.1  | 255.7  |
| 20°   | 253.6  | 253.2  | 246.8  | 231.0  | 217.0  | 213.5  | 226.0  | 230.7  | 246.8  | 264.3  | 271.5  |
| 22.5° | 307.3  | 309.1  | 299.1  | 277.9  | 249.3  | 231.0  | 238.2  | 244.6  | 265.4  | 286.5  | 290.8  |
| 25°   | 360.7  | 362.8  | 353.5  | 327.0  | 291.9  | 260.0  | 255.0  | 260.7  | 284.4  | 305.5  | 303.7  |
| 27.5° | 423.7  | 421.9  | 412.6  | 382.5  | 341.7  | 299.1  | 277.6  | 278.7  | 296.9  | 320.6  | 314.8  |
| 30°   | 469.9  | 467.4  | 458.5  | 438.0  | 399.7  | 351.0  | 309.8  | 306.6  | 312.0  | 338.1  | 332.0  |
| 32.5° | 512.2  | 514.0  | 507.2  | 479.9  | 443.8  | 404.4  | 358.2  | 349.6  | 347.4  | 369.6  | 359.6  |
| 35°   | 554.1  | 553.7  | 551.2  | 527.2  | 491.8  | 454.5  | 415.8  | 409.7  | 409.0  | 430.5  | 403.3  |
| 37.5° | 604.2  | 601.7  | 597.1  | 572.7  | 544.4  | 509.0  | 467.8  | 458.1  | 456.3  | 460.6  | 428.7  |
| 40°   | 657.9  | 661.2  | 653.7  | 628.2  | 597.4  | 570.9  | 513.3  | 498.6  | 486.4  | 498.9  | 478.5  |
| 42.5° | 737.8  | 740.3  | 727.1  | 709.5  | 669.8  | 645.1  | 586.7  | 566.6  | 560.9  | 579.9  | 556.9  |
| 45°   | 838.1  | 833.5  | 824.5  | 812.3  | 779.4  | 741.8  | 680.9  | 661.9  | 655.8  | 688.4  | 650.8  |
| 47.5° | 916.2  | 915.5  | 915.8  | 913.3  | 908.3  | 863.2  | 790.8  | 777.9  | 771.8  | 818.8  | 777.2  |
| 50°   | 965.6  | 968.5  | 980.7  | 1011.8 | 1034.7 | 1015.8 | 930.9  | 915.1  | 910.5  | 959.2  | 902.9  |
| 52.5° | 1002.9 | 1009.7 | 1030.1 | 1091.7 | 1165.1 | 1171.6 | 1101.4 | 1079.2 | 1068.4 | 1082.0 | 1003.9 |
| 55°   | 1021.8 | 1025.1 | 1056.2 | 1147.2 | 1262.2 | 1308.4 | 1279.0 | 1260.4 | 1217.0 | 1191.3 | 1122.5 |
| 57.5° | 977.4  | 972.4  | 1026.1 | 1141.8 | 1312.3 | 1418.7 | 1431.2 | 1410.1 | 1340.6 | 1320.6 | 1266.5 |
| 60°   | 861.0  | 858.9  | 919.4  | 1058.4 | 1268.6 | 1444.5 | 1544.1 | 1530.8 | 1467.0 | 1419.4 | 1368.5 |
| 62.5° | 656.9  | 660.5  | 724.6  | 866.0  | 1112.8 | 1370.3 | 1606.7 | 1617.5 | 1549.8 | 1478.9 | 1444.1 |
| 64°   | 527.6  | 523.3  | 582.0  | 726.0  | 976.4  | 1271.5 | 1602.1 | 1630.4 | 1574.9 | 1510.0 | 1450.9 |
| 65°   | 443.1  | 433.7  | 490.0  | 620.3  | 861.0  | 1199.9 | 1569.1 | 1614.6 | 1576.6 | 1517.5 | 1426.2 |
| 67.5° | 233.2  | 238.2  | 262.2  | 376.8  | 581.3  | 907.2  | 1413.0 | 1481.7 | 1497.1 | 1414.8 | 1242.8 |
| 70°   | 104.6  | 105.3  | 120.7  | 192.3  | 321.6  | 588.5  | 1136.5 | 1247.8 | 1256.4 | 1162.2 | 900.4  |
| 72.5° | 34.7   | 35.1   | 53.4   | 77.0   | 135.0  | 272.6  | 767.5  | 868.9  | 887.5  | 753.6  | 488.5  |
| 75°   | 21.5   | 22.2   | 28.3   | 41.5   | 62.7   | 95.3   | 389.0  | 457.7  | 461.7  | 334.2  | 177.6  |
| 77.5° | 13.6   | 14.3   | 17.2   | 24.7   | 34.4   | 36.2   | 127.5  | 154.4  | 174.8  | 120.3  | 55.2   |
| 80°   | 8.6    | 8.6    | 11.1   | 15.0   | 17.9   | 15.4   | 34.7   | 45.8   | 55.2   | 40.5   | 18.6   |
| 82.5° | 3.2    | 3.2    | 5.7    | 8.2    | 7.5    | 5.4    | 9.3    | 12.2   | 21.1   | 20.1   | 9.0    |
| 85°   | 0.0    | 0.0    | 0.4    | 0.7    | 0.4    | 0.7    | 1.8    | 2.5    | 3.9    | 5.7    | 2.9    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.4    | 0.4    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    |
| 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°    | 207.4  | 207.4 | 207.4 | 207.4 | 207.4 | 207.4 | 207.4 | 207.4 | 207.4 | 207.4 | 207.4 |
| 2.5°  | 208.1  | 208.8 | 210.2 | 210.6 | 211.0 | 209.9 | 211.0 | 209.9 | 210.6 | 210.6 | 210.6 |
| 5°    | 211.3  | 212.4 | 213.5 | 213.8 | 213.5 | 211.0 | 211.7 | 209.9 | 209.5 | 209.5 | 209.5 |
| 7.5°  | 215.6  | 216.7 | 218.5 | 217.4 | 215.3 | 211.7 | 211.3 | 208.8 | 207.7 | 207.7 | 208.1 |
| 10°   | 223.5  | 224.6 | 225.3 | 223.1 | 218.8 | 213.5 | 209.5 | 204.2 | 201.6 | 200.6 | 200.6 |
| 12.5° | 233.5  | 234.6 | 234.2 | 230.7 | 222.8 | 211.7 | 200.6 | 190.2 | 182.7 | 179.8 | 176.9 |
| 15°   | 244.3  | 245.7 | 245.0 | 237.5 | 222.4 | 202.7 | 181.2 | 156.9 | 141.8 | 132.2 | 130.4 |
| 17.5° | 256.8  | 258.2 | 254.7 | 241.0 | 217.0 | 183.7 | 142.9 | 110.0 | 88.1  | 79.9  | 79.5  |
| 20°   | 272.2  | 271.5 | 262.9 | 241.4 | 207.4 | 148.6 | 95.6  | 68.8  | 59.5  | 57.3  | 56.9  |
| 22.5° | 289.8  | 286.5 | 270.8 | 239.3 | 180.9 | 101.0 | 61.6  | 54.4  | 53.4  | 52.7  | 52.7  |
| 25°   | 299.8  | 294.1 | 273.6 | 233.2 | 139.3 | 64.5  | 52.3  | 50.9  | 49.4  | 48.0  | 47.6  |
| 27.5° | 307.7  | 299.1 | 274.7 | 213.1 | 92.8  | 49.4  | 47.3  | 45.8  | 43.7  | 41.5  | 41.2  |
| 30°   | 322.0  | 309.1 | 276.5 | 178.0 | 56.9  | 42.3  | 41.2  | 38.7  | 35.5  | 33.3  | 32.6  |
| 32.5° | 347.8  | 329.2 | 283.7 | 133.2 | 41.5  | 37.2  | 34.4  | 31.2  | 27.6  | 25.4  | 25.4  |
| 35°   | 375.4  | 348.1 | 287.2 | 87.8  | 36.2  | 32.6  | 28.3  | 24.4  | 21.1  | 19.3  | 19.0  |
| 37.5° | 400.8  | 375.4 | 286.2 | 53.7  | 32.2  | 27.9  | 23.3  | 19.3  | 16.5  | 15.0  | 15.0  |
| 40°   | 452.7  | 423.0 | 271.5 | 36.9  | 28.3  | 23.6  | 19.0  | 15.0  | 13.3  | 12.2  | 12.2  |
| 42.5° | 526.9  | 475.3 | 238.9 | 31.5  | 24.7  | 19.7  | 15.0  | 12.5  | 11.1  | 10.0  | 10.0  |
| 45°   | 610.0  | 532.9 | 190.5 | 28.3  | 21.5  | 16.5  | 12.5  | 10.4  | 9.0   | 8.6   | 8.6   |
| 47.5° | 718.8  | 602.8 | 140.0 | 25.4  | 18.6  | 14.0  | 10.4  | 8.6   | 7.9   | 7.5   | 7.5   |
| 50°   | 814.1  | 659.4 | 95.6  | 22.2  | 16.5  | 11.8  | 9.0   | 7.9   | 7.2   | 6.8   | 6.8   |
| 52.5° | 900.8  | 698.8 | 63.0  | 19.3  | 14.7  | 9.7   | 8.2   | 7.2   | 6.8   | 6.4   | 6.4   |
| 55°   | 1002.9 | 728.9 | 42.6  | 16.8  | 12.9  | 9.0   | 7.9   | 7.2   | 6.4   | 6.4   | 6.1   |
| 57.5° | 1089.5 | 746.8 | 30.4  | 14.3  | 11.5  | 8.2   | 7.5   | 6.8   | 6.1   | 5.7   | 5.7   |
| 60°   | 1140.0 | 725.6 | 22.2  | 12.5  | 10.0  | 7.5   | 6.8   | 6.1   | 5.7   | 5.4   | 5.4   |
| 62.5° | 1154.0 | 684.8 | 17.2  | 10.7  | 8.6   | 6.8   | 6.1   | 5.4   | 5.0   | 4.7   | 4.7   |
| 64°   | 1121.8 | 641.1 | 14.7  | 9.3   | 7.5   | 6.1   | 5.7   | 5.0   | 4.3   | 3.6   | 3.6   |
| 65°   | 1076.3 | 600.6 | 13.3  | 8.6   | 6.8   | 5.7   | 5.4   | 4.7   | 3.6   | 2.9   | 2.9   |
| 67.5° | 896.8  | 478.9 | 10.7  | 7.2   | 5.4   | 5.0   | 4.3   | 3.6   | 2.5   | 1.8   | 1.8   |
| 70°   | 636.8  | 334.9 | 8.2   | 5.7   | 4.7   | 4.7   | 3.9   | 2.9   | 1.4   | 0.7   | 0.7   |
| 72.5° | 337.0  | 174.1 | 6.8   | 4.7   | 3.6   | 3.6   | 3.2   | 1.8   | 1.1   | 0.7   | 0.4   |
| 75°   | 117.8  | 57.3  | 5.7   | 3.9   | 3.2   | 2.5   | 2.1   | 1.4   | 1.1   | 0.7   | 0.4   |
| 77.5° | 35.8   | 19.0  | 5.0   | 3.9   | 2.9   | 2.1   | 2.5   | 2.1   | 2.1   | 1.4   | 1.1   |
| 80°   | 11.5   | 6.8   | 2.9   | 2.5   | 2.9   | 2.9   | 2.5   | 2.1   | 2.5   | 1.8   | 1.4   |
| 82.5° | 4.3    | 2.5   | 1.1   | 1.4   | 1.4   | 1.8   | 1.8   | 1.4   | 1.1   | 0.4   | 0.0   |
| 85°   | 1.4    | 1.1   | 0.7   | 1.1   | 1.1   | 1.1   | 0.7   | 0.7   | 0.4   | 0.0   | 0.0   |
| 87.5° | 0.7    | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.4   | 0.4   | 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)