

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: P400887

Luminaire Tested: **ENC-SA1A-722-U-T4FT-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400887  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENC-SA1A-722-U-T4FT-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2200K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1423 lumens  
Efficiency: N/A  
Efficacy: 70.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G0

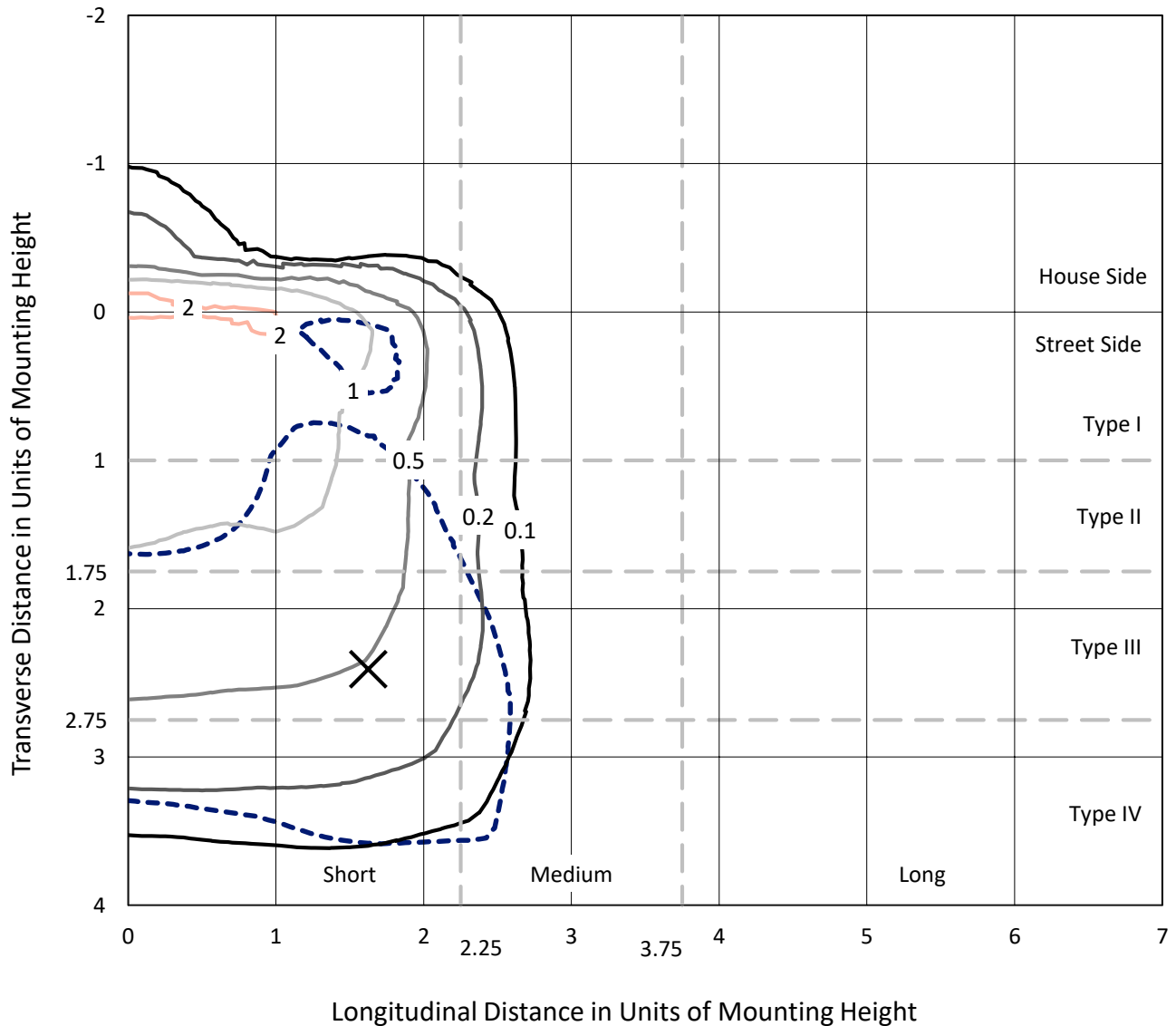
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

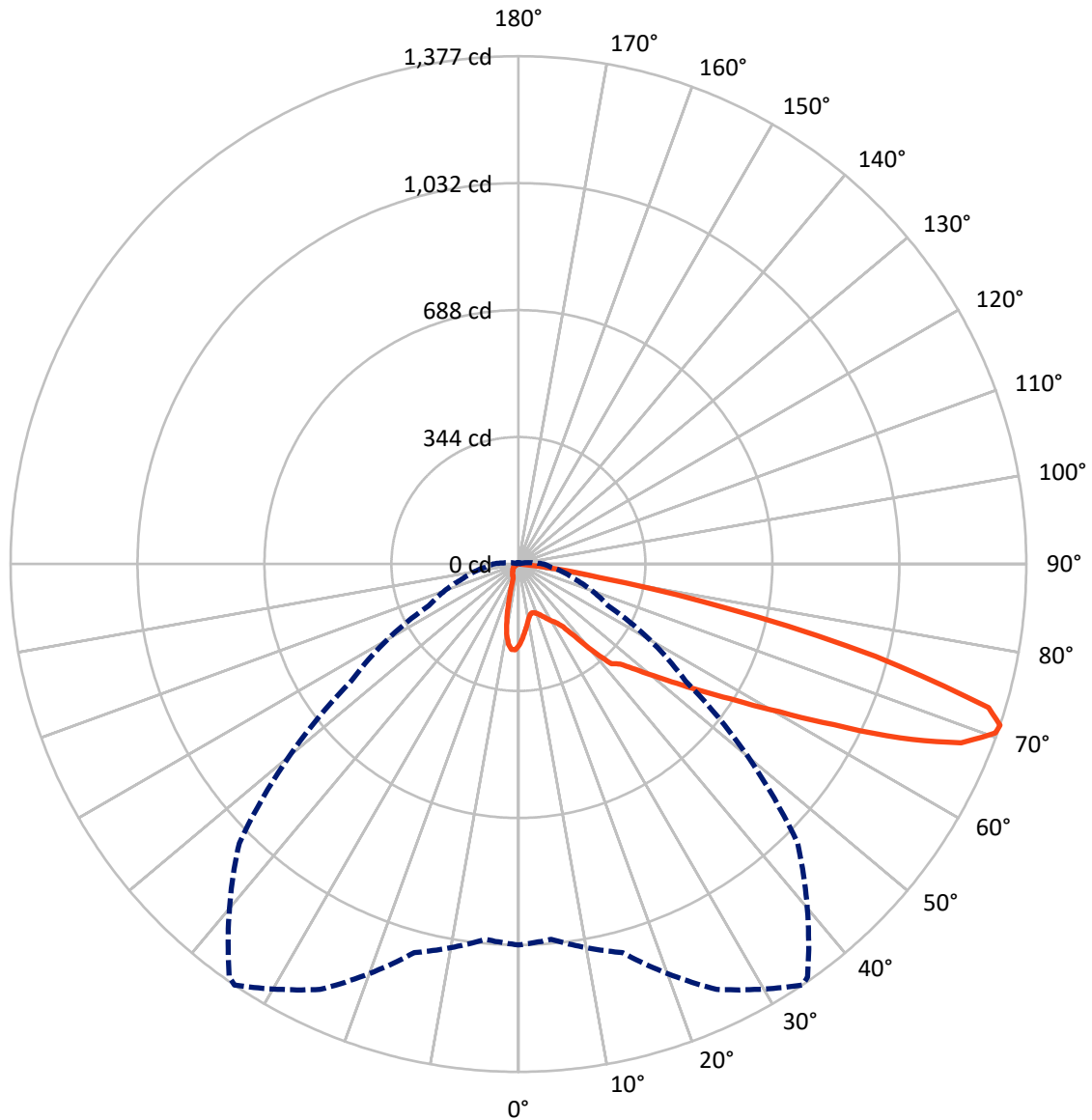
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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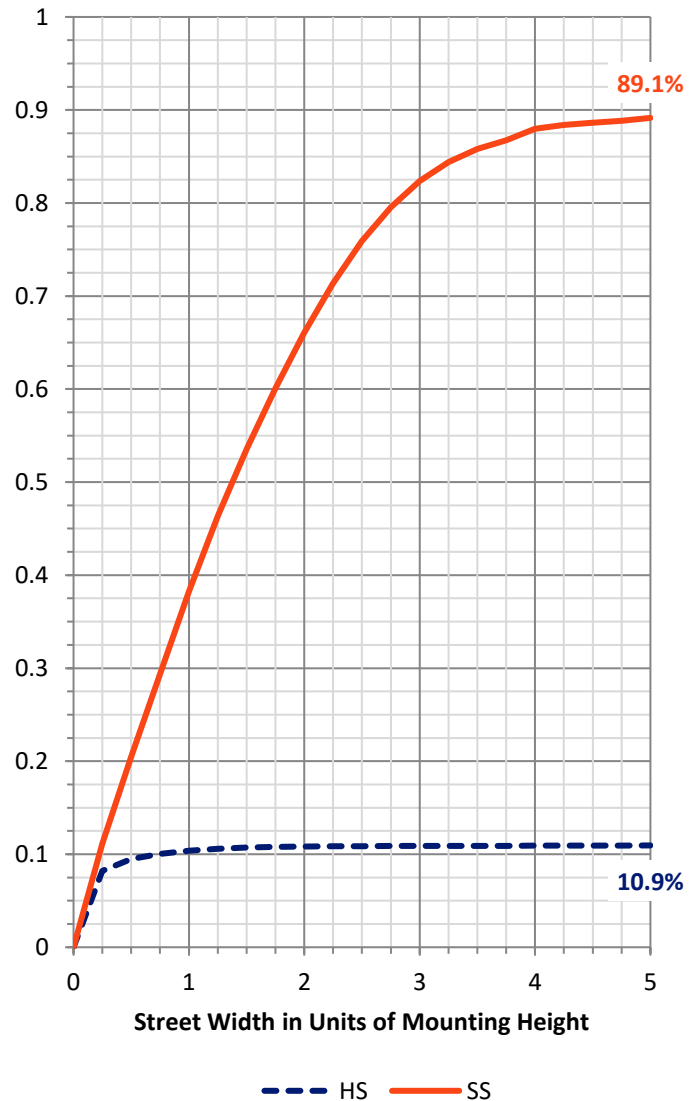
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 157.4    | 0.0    | 157.4  |
|                    | % Fixture | 11.1     | 0.0    | 11.1   |
| <b>Street Side</b> | Lumens    | 1265.6   | 0.0    | 1265.6 |
|                    | % Fixture | 88.9     | 0.0    | 88.9   |
| <b>Total</b>       | Lumens    | 1423.0   | 0.0    | 1423.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 19.4   | 1.4       |
| 10°-20°   | 44.5   | 3.1       |
| 20°-30°   | 66.5   | 4.7       |
| 30°-40°   | 111.0  | 7.8       |
| 40°-50°   | 200.5  | 14.1      |
| 50°-60°   | 318.2  | 22.4      |
| 60°-70°   | 427.6  | 30.0      |
| 70°-80°   | 226.9  | 15.9      |
| 80°-90°   | 8.4    | 0.6       |
| 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°    | 1423.0 | 100.0     |
| 0°-180°   | 1423.0 | 100.0     |



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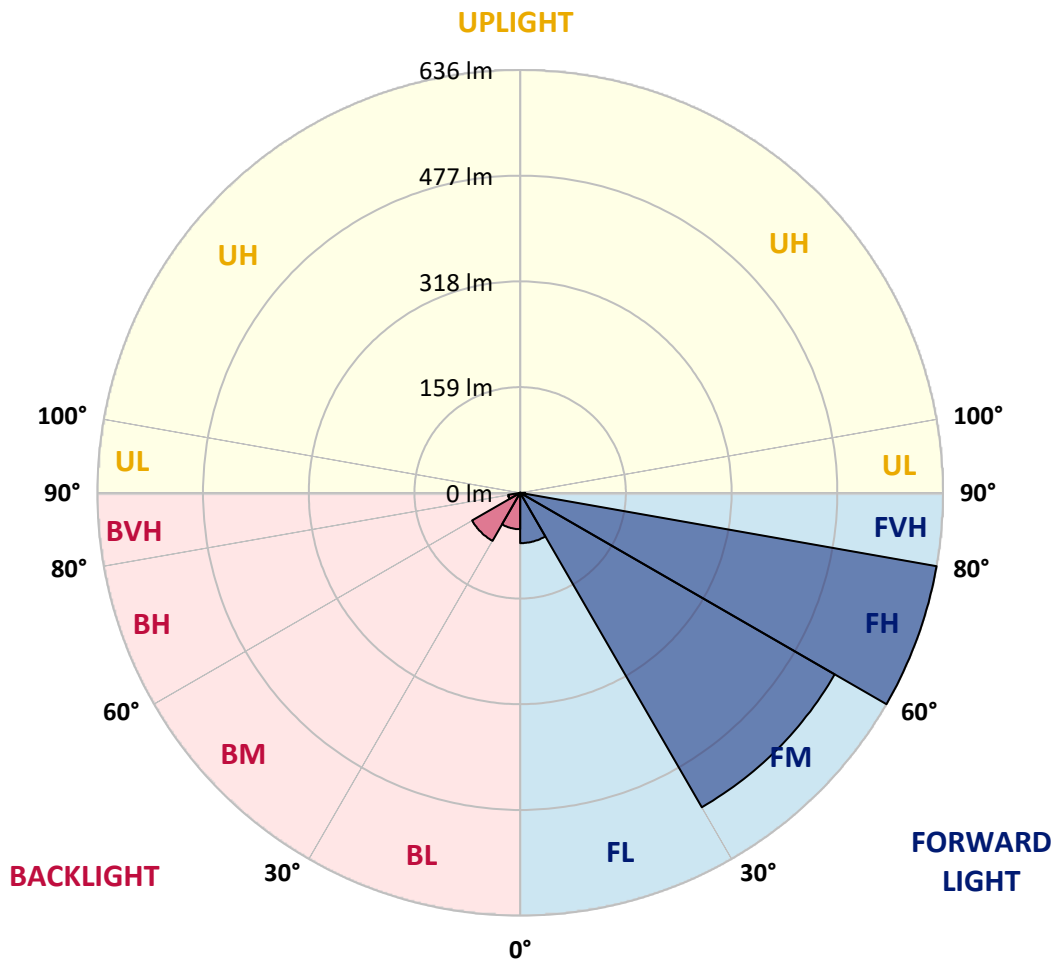
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|--------|-----------|-------------------------|------|--------|
|      |             |        |           | B                       | U    | G      |
| FL   | (0°-30°)    | 75.7   | 5.3       |                         |      |        |
| FM   | (30°-60°)   | 546.2  | 38.4      |                         |      |        |
| FH   | (60°-80°)   | 636.1  | 44.7      |                         |      | G0/660 |
| FVH  | (80°-90°)   | 7.6    | 0.5       |                         |      | G0/10  |
| BL   | (0°-30°)    | 54.7   | 3.8       | B0/110                  |      |        |
| BM   | (30°-60°)   | 83.5   | 5.9       | B0/220                  |      |        |
| BH   | (60°-80°)   | 18.4   | 1.3       | B0/110                  |      | G0/110 |
| BVH  | (80°-90°)   | 0.8    | 0.1       |                         |      | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 34°    | 35°    | 45°    | 55°   | 65°   | 75°   | 85°   |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 0°    | 220.5  | 220.5  | 220.5  | 220.5  | 220.5  | 220.5  | 220.5  | 220.5 | 220.5 | 220.5 | 220.5 |
| 2.5°  | 200.8  | 198.2  | 200.5  | 201.6  | 202.5  | 203.6  | 205.3  | 208.5 | 211.9 | 215.9 | 218.2 |
| 5°    | 175.1  | 176.5  | 177.4  | 180.5  | 183.6  | 184.2  | 189.6  | 195.9 | 203.9 | 211.9 | 218.8 |
| 7.5°  | 154.2  | 154.2  | 156.8  | 161.7  | 166.8  | 167.4  | 176.8  | 185.1 | 196.5 | 208.8 | 219.9 |
| 10°   | 137.7  | 138.2  | 140.2  | 145.1  | 151.7  | 153.1  | 163.7  | 175.1 | 189.4 | 205.3 | 221.1 |
| 12.5° | 132.2  | 131.9  | 131.7  | 135.1  | 140.5  | 141.9  | 153.7  | 167.4 | 184.2 | 203.6 | 223.9 |
| 15°   | 135.7  | 134.8  | 132.8  | 133.4  | 136.8  | 138.2  | 148.5  | 162.2 | 181.1 | 203.3 | 228.8 |
| 17.5° | 141.1  | 139.9  | 136.2  | 135.1  | 138.8  | 140.2  | 148.8  | 160.8 | 179.9 | 204.8 | 234.5 |
| 20°   | 147.7  | 146.5  | 140.8  | 139.4  | 143.1  | 144.2  | 153.1  | 163.4 | 180.5 | 207.6 | 242.2 |
| 22.5° | 157.1  | 155.7  | 147.4  | 145.7  | 149.4  | 150.5  | 159.9  | 169.4 | 183.9 | 212.8 | 252.8 |
| 25°   | 168.5  | 166.8  | 156.2  | 153.9  | 158.5  | 159.7  | 169.1  | 177.9 | 189.6 | 219.6 | 266.2 |
| 27.5° | 181.1  | 179.1  | 167.9  | 163.4  | 168.5  | 170.2  | 179.1  | 188.8 | 197.9 | 228.2 | 283.9 |
| 30°   | 192.5  | 190.2  | 179.4  | 174.2  | 179.4  | 180.2  | 190.8  | 201.6 | 211.3 | 242.8 | 309.9 |
| 32.5° | 224.2  | 218.5  | 201.6  | 186.8  | 190.2  | 191.9  | 204.8  | 221.9 | 236.5 | 260.2 | 343.3 |
| 35°   | 271.6  | 267.0  | 246.5  | 220.8  | 208.8  | 209.3  | 225.9  | 247.6 | 254.2 | 280.5 | 384.7 |
| 37.5° | 317.3  | 313.3  | 295.3  | 271.6  | 248.8  | 249.6  | 252.5  | 273.3 | 281.0 | 315.6 | 435.3 |
| 40°   | 367.3  | 361.0  | 346.7  | 324.2  | 308.5  | 304.7  | 290.7  | 305.3 | 322.2 | 359.9 | 490.4 |
| 42.5° | 390.4  | 384.4  | 369.6  | 371.0  | 369.3  | 362.7  | 335.0  | 355.3 | 374.1 | 424.1 | 551.2 |
| 45°   | 428.7  | 417.0  | 386.4  | 388.7  | 386.4  | 387.0  | 393.8  | 423.3 | 439.5 | 492.1 | 620.0 |
| 47.5° | 464.1  | 450.7  | 418.7  | 416.4  | 426.4  | 431.5  | 468.4  | 504.1 | 505.5 | 551.2 | 674.0 |
| 50°   | 496.4  | 486.7  | 457.3  | 457.5  | 475.8  | 481.5  | 555.2  | 587.8 | 558.9 | 596.6 | 716.3 |
| 52.5° | 539.2  | 525.5  | 499.2  | 508.7  | 537.2  | 542.4  | 641.8  | 661.2 | 597.5 | 637.8 | 749.4 |
| 55°   | 578.9  | 571.5  | 552.1  | 566.1  | 609.8  | 623.2  | 729.7  | 717.7 | 624.6 | 674.3 | 765.4 |
| 57.5° | 644.0  | 636.9  | 631.8  | 638.9  | 697.4  | 714.3  | 818.8  | 757.7 | 645.8 | 698.6 | 758.0 |
| 60°   | 752.6  | 745.4  | 730.0  | 736.6  | 812.8  | 821.4  | 888.8  | 798.3 | 654.0 | 705.4 | 728.9 |
| 62.5° | 886.5  | 877.7  | 852.8  | 883.1  | 959.6  | 959.3  | 961.3  | 819.7 | 643.5 | 685.2 | 652.0 |
| 65°   | 1007.3 | 995.0  | 982.2  | 1043.9 | 1137.0 | 1124.1 | 1038.5 | 822.3 | 610.0 | 587.2 | 504.4 |
| 67.5° | 1095.3 | 1090.4 | 1097.6 | 1193.8 | 1294.1 | 1281.2 | 1113.3 | 786.8 | 507.8 | 423.8 | 311.6 |
| 70°   | 1091.9 | 1081.9 | 1127.3 | 1280.9 | 1372.0 | 1361.5 | 1110.1 | 646.6 | 338.7 | 224.5 | 130.5 |
| 71°   | 1032.7 | 1021.3 | 1090.4 | 1272.4 | 1376.6 | 1366.6 | 1070.2 | 553.2 | 267.9 | 158.5 | 86.0  |
| 72.5° | 798.0  | 832.5  | 942.5  | 1180.7 | 1332.6 | 1319.8 | 961.3  | 423.6 | 169.6 | 91.7  | 43.1  |
| 75°   | 337.6  | 356.4  | 559.5  | 842.8  | 999.6  | 993.0  | 648.0  | 195.6 | 78.0  | 41.4  | 16.6  |
| 77.5° | 86.8   | 85.7   | 171.4  | 361.6  | 582.1  | 592.3  | 298.7  | 67.1  | 40.6  | 29.4  | 9.4   |
| 80°   | 16.9   | 18.3   | 48.8   | 125.7  | 222.2  | 228.2  | 97.4   | 29.4  | 27.1  | 23.1  | 4.9   |
| 82.5° | 1.7    | 2.0    | 8.6    | 38.8   | 74.5   | 72.0   | 21.4   | 11.1  | 16.6  | 15.7  | 2.3   |
| 85°   | 0.0    | 0.0    | 0.3    | 0.3    | 0.3    | 0.3    | 0.3    | 1.1   | 4.0   | 4.3   | 0.6   |
| 87.5° | 0.0    | 0.0    | 0.3    | 0.3    | 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   |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°   | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 | 220.5 |
| 2.5°  | 219.9 | 222.5 | 225.3 | 227.3 | 229.3 | 229.6 | 232.5 | 231.9 | 232.8 | 233.1 | 232.8 |
| 5°    | 222.5 | 225.9 | 231.3 | 234.2 | 235.3 | 233.3 | 232.8 | 229.6 | 228.5 | 227.1 | 225.6 |
| 7.5°  | 225.3 | 229.6 | 235.9 | 237.3 | 233.3 | 225.9 | 219.9 | 212.2 | 205.1 | 200.5 | 201.1 |
| 10°   | 228.5 | 233.9 | 239.1 | 235.3 | 225.1 | 210.5 | 193.6 | 176.5 | 161.4 | 155.7 | 157.7 |
| 12.5° | 232.5 | 239.1 | 241.3 | 231.1 | 211.1 | 181.6 | 151.1 | 125.1 | 109.4 | 100.0 | 98.8  |
| 15°   | 238.5 | 245.0 | 242.5 | 224.2 | 188.8 | 142.8 | 104.8 | 78.5  | 63.4  | 58.5  | 56.0  |
| 17.5° | 245.9 | 252.2 | 242.5 | 211.9 | 157.1 | 102.2 | 63.7  | 47.7  | 42.8  | 41.7  | 42.0  |
| 20°   | 255.0 | 261.0 | 241.3 | 193.4 | 121.1 | 62.8  | 42.6  | 39.4  | 39.4  | 39.4  | 39.1  |
| 22.5° | 267.3 | 270.5 | 239.6 | 168.8 | 83.4  | 42.6  | 37.7  | 37.4  | 37.7  | 37.7  | 37.7  |
| 25°   | 282.2 | 281.6 | 236.5 | 139.4 | 52.6  | 36.3  | 36.0  | 36.0  | 36.3  | 36.6  | 36.6  |
| 27.5° | 301.9 | 295.9 | 231.1 | 104.2 | 37.1  | 33.7  | 34.3  | 34.8  | 35.4  | 36.0  | 36.0  |
| 30°   | 329.3 | 314.7 | 222.2 | 70.5  | 31.4  | 31.1  | 32.3  | 34.0  | 34.8  | 35.4  | 35.4  |
| 32.5° | 358.7 | 334.2 | 207.1 | 45.1  | 28.8  | 28.6  | 29.7  | 32.3  | 34.6  | 35.1  | 35.1  |
| 35°   | 395.8 | 355.0 | 184.5 | 32.6  | 27.1  | 26.6  | 27.7  | 30.0  | 33.4  | 35.1  | 35.1  |
| 37.5° | 435.0 | 377.3 | 151.7 | 27.4  | 25.4  | 24.8  | 25.7  | 27.4  | 31.4  | 34.6  | 34.8  |
| 40°   | 476.7 | 397.0 | 114.0 | 25.4  | 23.7  | 23.4  | 23.7  | 25.4  | 28.6  | 32.8  | 33.7  |
| 42.5° | 518.7 | 413.6 | 79.7  | 23.4  | 22.3  | 21.7  | 22.3  | 23.4  | 26.3  | 30.0  | 30.6  |
| 45°   | 564.9 | 431.8 | 53.1  | 21.7  | 21.1  | 20.6  | 21.1  | 22.0  | 24.0  | 26.0  | 26.3  |
| 47.5° | 598.6 | 438.4 | 36.6  | 19.7  | 19.4  | 19.7  | 20.0  | 20.6  | 21.7  | 22.0  | 21.7  |
| 50°   | 620.9 | 435.0 | 26.3  | 17.7  | 18.0  | 18.8  | 18.8  | 19.1  | 19.1  | 18.3  | 18.0  |
| 52.5° | 637.2 | 422.4 | 20.3  | 15.1  | 16.9  | 17.7  | 17.7  | 17.1  | 16.6  | 15.4  | 15.1  |
| 55°   | 638.9 | 394.1 | 16.0  | 13.1  | 15.1  | 16.6  | 16.3  | 15.1  | 14.0  | 12.9  | 12.9  |
| 57.5° | 617.2 | 351.3 | 13.1  | 11.1  | 13.1  | 14.6  | 14.0  | 12.9  | 11.4  | 10.6  | 10.6  |
| 60°   | 582.1 | 307.3 | 11.1  | 9.4   | 10.9  | 12.3  | 11.4  | 10.6  | 9.1   | 8.3   | 8.3   |
| 62.5° | 517.2 | 263.9 | 9.1   | 7.7   | 8.9   | 9.7   | 9.4   | 8.6   | 7.1   | 6.6   | 6.3   |
| 65°   | 396.4 | 200.8 | 6.9   | 6.0   | 6.9   | 8.0   | 7.4   | 6.6   | 5.7   | 4.9   | 4.6   |
| 67.5° | 238.2 | 120.8 | 5.4   | 4.6   | 5.4   | 6.3   | 5.7   | 4.9   | 4.0   | 3.4   | 3.4   |
| 70°   | 100.8 | 51.7  | 4.3   | 3.4   | 4.0   | 4.9   | 4.6   | 4.0   | 3.1   | 2.9   | 2.9   |
| 71°   | 68.5  | 36.8  | 3.7   | 3.1   | 3.7   | 4.6   | 4.3   | 3.7   | 3.1   | 2.9   | 2.9   |
| 72.5° | 35.1  | 18.8  | 3.1   | 2.6   | 3.4   | 4.0   | 4.0   | 3.4   | 2.9   | 2.9   | 2.9   |
| 75°   | 12.6  | 8.0   | 2.6   | 2.3   | 2.9   | 2.9   | 3.1   | 3.1   | 3.1   | 3.1   | 2.9   |
| 77.5° | 7.1   | 4.9   | 2.3   | 2.3   | 2.3   | 2.6   | 3.1   | 3.4   | 3.7   | 3.7   | 3.4   |
| 80°   | 4.0   | 2.6   | 1.4   | 1.7   | 2.3   | 2.6   | 3.1   | 3.4   | 4.0   | 4.0   | 3.7   |
| 82.5° | 2.0   | 0.9   | 0.3   | 0.9   | 1.4   | 2.3   | 2.6   | 2.9   | 3.4   | 3.1   | 3.1   |
| 85°   | 0.3   | 0.0   | 0.0   | 0.3   | 0.9   | 1.1   | 1.7   | 2.3   | 2.9   | 2.9   | 2.6   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.3   | 0.6   | 0.9   | 1.4   | 2.0   | 2.3   | 2.0   |
| 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)