

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: P400801

Luminaire Tested: **ENT-SA1-750-U-SL2-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400801  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-750-U-SL2-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 624 lumens  
Efficiency: N/A  
Efficacy: 48.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G0

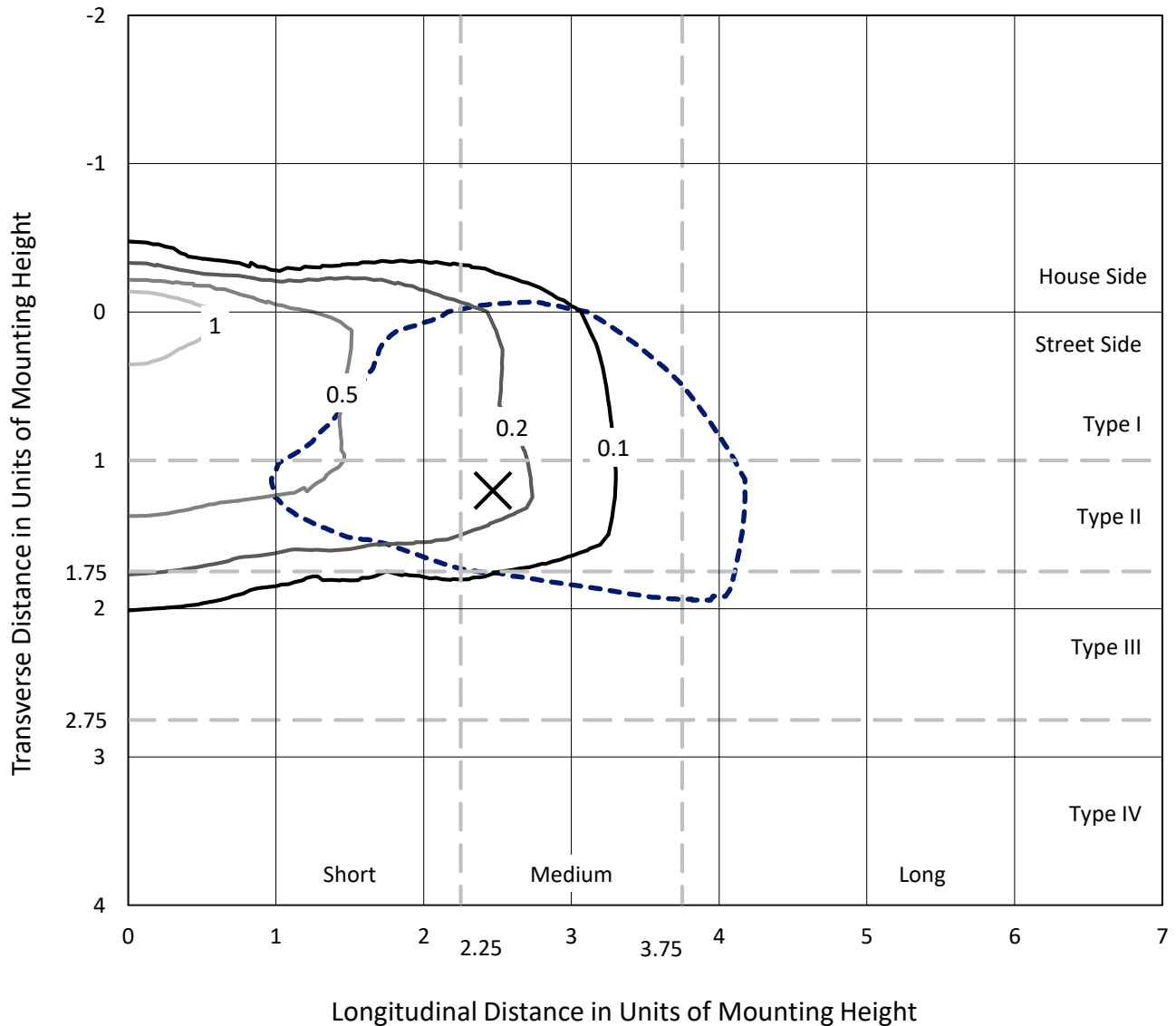
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

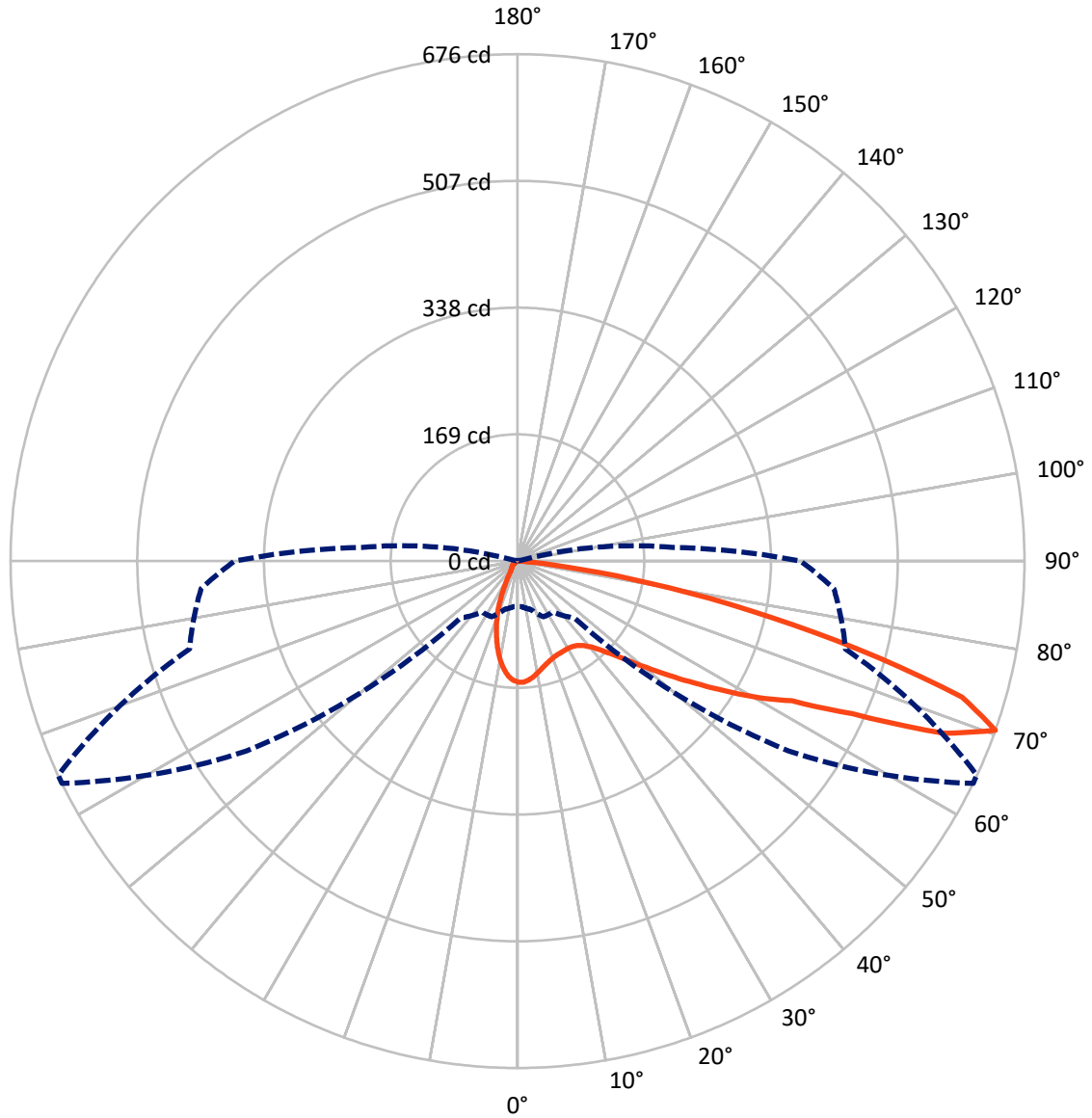
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.6 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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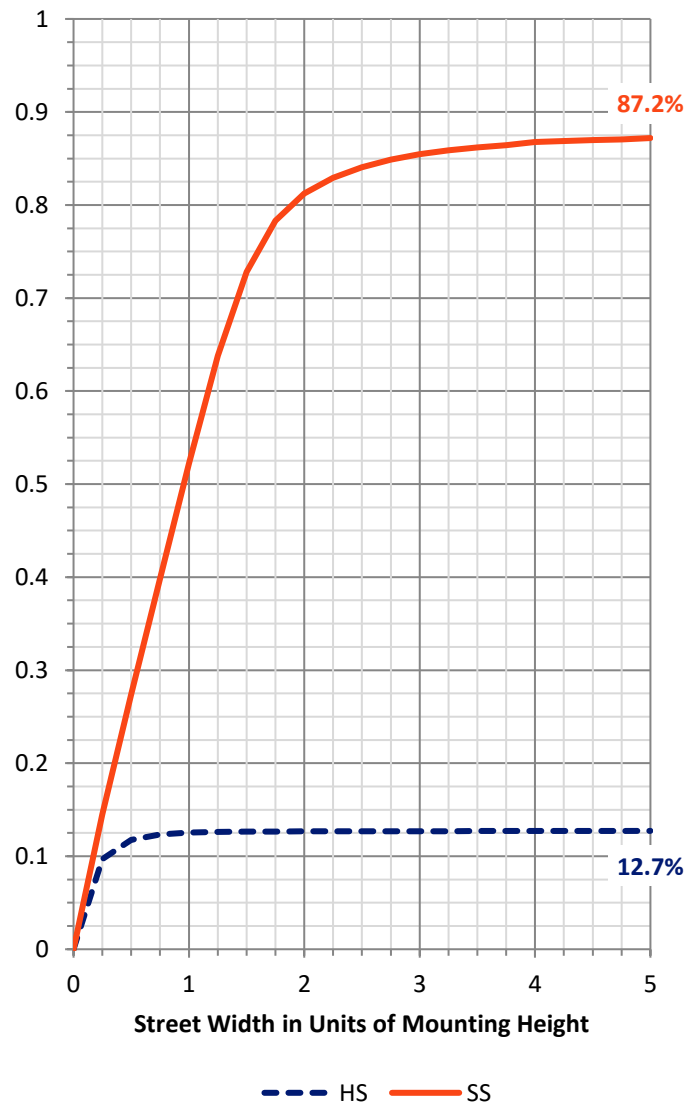
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| <b>House Side</b>  | Lumens    | 80.2     | 0.0    | 80.2  |
|                    | % Fixture | 12.8     | 0.0    | 12.8  |
| <b>Street Side</b> | Lumens    | 543.8    | 0.0    | 543.8 |
|                    | % Fixture | 87.2     | 0.0    | 87.2  |
| <b>Total</b>       | Lumens    | 624.0    | 0.0    | 624.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0 |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 13.6   | 2.2       |
| 10°-20°   | 30.2   | 4.8       |
| 20°-30°   | 41.6   | 6.7       |
| 30°-40°   | 57.3   | 9.2       |
| 40°-50°   | 85.4   | 13.7      |
| 50°-60°   | 134.9  | 21.6      |
| 60°-70°   | 152.8  | 24.5      |
| 70°-80°   | 100.4  | 16.1      |
| 80°-90°   | 7.9    | 1.3       |
| 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°    | 624.0  | 100.0     |
| 0°-180°   | 624.0  | 100.0     |



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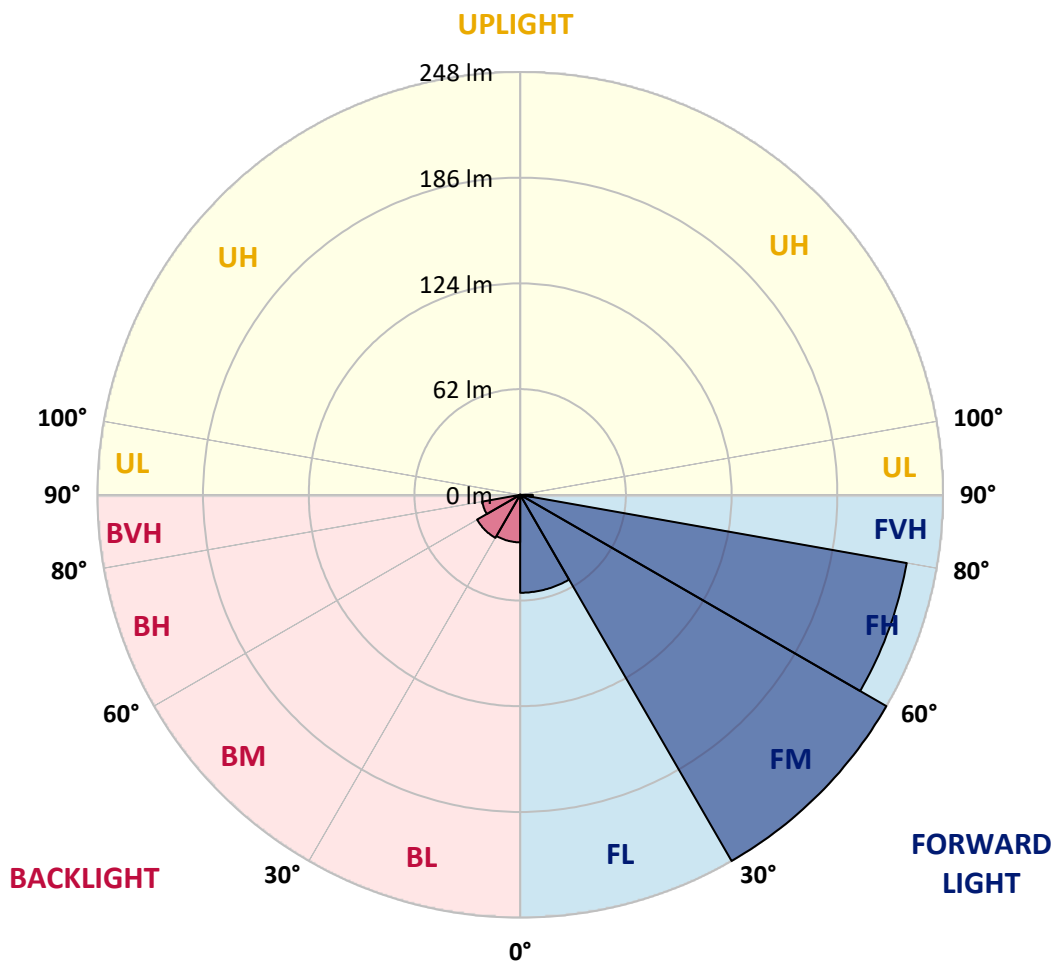
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|--------|-----------|-------------------------|------|--------|
|      |             |        |           | B                       | U    | G      |
| FL   | (0°-30°)    | 57.5   | 9.2       |                         |      |        |
| FM   | (30°-60°)   | 248.3  | 39.8      |                         |      |        |
| FH   | (60°-80°)   | 230.6  | 36.9      |                         |      | G0/660 |
| FVH  | (80°-90°)   | 7.4    | 1.2       |                         |      | G0/10  |
| BL   | (0°-30°)    | 27.9   | 4.5       | B0/110                  |      |        |
| BM   | (30°-60°)   | 29.2   | 4.7       | B0/220                  |      |        |
| BH   | (60°-80°)   | 22.6   | 3.6       | B0/110                  |      | G0/110 |
| BVH  | (80°-90°)   | 0.4    | 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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 64°   | 65°   | 75°   | 85°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 |
| 2.5°  | 157.0 | 157.0 | 157.8 | 158.6 | 159.0 | 160.2 | 161.1 | 161.7 | 161.7 | 162.2 | 161.4 |
| 5°    | 146.6 | 146.6 | 147.3 | 149.1 | 151.1 | 153.6 | 156.5 | 159.3 | 159.9 | 162.0 | 161.9 |
| 7.5°  | 136.9 | 137.8 | 138.9 | 140.8 | 142.9 | 146.6 | 150.6 | 155.5 | 156.0 | 161.1 | 162.2 |
| 10°   | 130.3 | 130.8 | 131.5 | 133.5 | 136.6 | 140.9 | 145.2 | 151.0 | 152.0 | 159.6 | 162.2 |
| 12.5° | 124.9 | 125.0 | 126.0 | 128.3 | 131.2 | 135.4 | 140.2 | 146.6 | 147.8 | 156.8 | 161.7 |
| 15°   | 121.0 | 120.9 | 122.0 | 124.2 | 127.1 | 131.4 | 136.1 | 142.8 | 144.1 | 154.5 | 161.6 |
| 17.5° | 118.7 | 118.8 | 119.7 | 121.4 | 124.1 | 128.2 | 133.0 | 139.6 | 140.9 | 152.6 | 162.2 |
| 20°   | 118.7 | 118.7 | 119.3 | 120.1 | 122.1 | 125.8 | 130.5 | 137.3 | 138.6 | 151.4 | 163.0 |
| 22.5° | 121.0 | 120.8 | 121.3 | 120.6 | 121.6 | 124.1 | 128.9 | 135.7 | 137.2 | 150.9 | 164.2 |
| 25°   | 125.2 | 124.8 | 125.1 | 123.7 | 122.6 | 123.7 | 128.0 | 135.1 | 136.6 | 151.0 | 165.3 |
| 27.5° | 131.0 | 131.0 | 130.4 | 128.4 | 125.6 | 124.4 | 127.8 | 134.6 | 136.2 | 151.0 | 166.0 |
| 30°   | 139.1 | 138.8 | 137.8 | 135.9 | 131.6 | 127.5 | 128.9 | 134.6 | 136.2 | 151.1 | 166.2 |
| 32.5° | 147.3 | 147.5 | 148.0 | 146.1 | 140.2 | 132.8 | 131.6 | 135.6 | 136.9 | 151.0 | 165.9 |
| 35°   | 155.5 | 155.6 | 158.0 | 158.2 | 150.8 | 141.2 | 136.1 | 138.3 | 139.1 | 152.1 | 166.1 |
| 37.5° | 162.7 | 163.3 | 168.0 | 170.3 | 164.2 | 152.1 | 143.2 | 143.2 | 143.6 | 155.1 | 167.5 |
| 40°   | 170.9 | 172.3 | 178.0 | 183.1 | 180.7 | 166.0 | 153.6 | 150.4 | 150.7 | 160.4 | 170.4 |
| 42.5° | 180.3 | 182.1 | 189.5 | 197.0 | 196.9 | 183.1 | 166.8 | 162.0 | 162.2 | 169.8 | 176.5 |
| 45°   | 192.3 | 193.5 | 202.9 | 212.2 | 214.2 | 202.0 | 183.4 | 177.0 | 177.2 | 183.9 | 188.2 |
| 47.5° | 206.9 | 208.3 | 217.4 | 228.6 | 233.6 | 224.7 | 204.9 | 198.0 | 197.3 | 202.0 | 205.1 |
| 50°   | 225.9 | 228.7 | 234.1 | 244.8 | 257.0 | 251.1 | 230.1 | 223.2 | 222.3 | 226.1 | 227.0 |
| 52.5° | 244.2 | 246.7 | 248.9 | 258.8 | 282.3 | 283.8 | 261.1 | 253.5 | 252.6 | 253.5 | 254.7 |
| 55°   | 246.9 | 248.3 | 250.0 | 263.4 | 302.9 | 325.4 | 296.3 | 287.3 | 284.8 | 283.1 | 287.2 |
| 57.5° | 225.1 | 224.2 | 229.7 | 247.9 | 306.3 | 371.3 | 343.9 | 326.5 | 324.0 | 314.9 | 310.9 |
| 60°   | 178.2 | 177.0 | 182.2 | 207.1 | 287.2 | 394.2 | 410.0 | 369.8 | 363.9 | 333.4 | 329.4 |
| 62.5° | 125.2 | 123.8 | 130.5 | 145.2 | 222.8 | 389.7 | 484.5 | 410.8 | 399.1 | 349.7 | 344.3 |
| 65°   | 96.5  | 95.8  | 99.4  | 102.7 | 136.0 | 337.5 | 525.5 | 491.0 | 466.7 | 367.5 | 360.6 |
| 67.5° | 75.6  | 76.5  | 81.0  | 90.5  | 87.8  | 210.4 | 521.7 | 613.2 | 588.9 | 400.2 | 395.8 |
| 70°   | 60.8  | 61.0  | 66.6  | 81.9  | 82.8  | 107.1 | 441.7 | 676.4 | 676.1 | 453.0 | 423.8 |
| 72.5° | 36.8  | 37.7  | 46.9  | 70.8  | 83.6  | 82.0  | 296.9 | 619.8 | 628.3 | 465.3 | 382.2 |
| 75°   | 17.7  | 18.7  | 24.3  | 47.5  | 83.1  | 79.8  | 160.7 | 469.2 | 480.2 | 417.2 | 309.9 |
| 77.5° | 6.6   | 7.5   | 11.2  | 23.3  | 61.6  | 73.1  | 84.5  | 316.4 | 325.0 | 305.4 | 209.9 |
| 80°   | 2.1   | 2.4   | 4.4   | 10.6  | 31.3  | 60.4  | 54.4  | 178.4 | 184.2 | 133.7 | 70.6  |
| 82.5° | 0.2   | 0.3   | 1.2   | 3.6   | 12.1  | 30.7  | 31.9  | 67.2  | 70.1  | 26.1  | 14.3  |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.2   | 0.2   | 7.9   | 12.8  | 10.5  | 2.5   | 4.2   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.2   | 0.3   | 0.3   | 0.3   | 0.4   |
| 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°    | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 | 161.5 |
| 2.5°  | 161.3 | 161.3 | 160.5 | 159.3 | 157.8 | 155.6 | 155.1 | 153.3 | 153.3 | 151.9 | 151.7 |
| 5°    | 161.5 | 160.9 | 158.3 | 154.6 | 149.5 | 143.9 | 140.4 | 136.5 | 133.2 | 131.1 | 131.4 |
| 7.5°  | 161.5 | 160.1 | 155.1 | 146.8 | 137.2 | 127.5 | 120.2 | 111.6 | 107.7 | 105.0 | 106.2 |
| 10°   | 161.1 | 158.7 | 149.9 | 137.4 | 122.1 | 108.7 | 96.7  | 86.8  | 80.0  | 77.1  | 74.7  |
| 12.5° | 160.1 | 156.6 | 143.4 | 125.6 | 106.1 | 88.6  | 71.9  | 58.9  | 49.9  | 45.4  | 44.9  |
| 15°   | 159.2 | 154.4 | 135.9 | 112.8 | 88.0  | 65.1  | 46.4  | 34.0  | 26.3  | 24.6  | 24.8  |
| 17.5° | 159.0 | 152.3 | 128.6 | 99.2  | 70.3  | 43.3  | 26.8  | 21.6  | 20.5  | 20.1  | 20.0  |
| 20°   | 159.1 | 150.4 | 120.7 | 85.7  | 49.8  | 27.0  | 20.3  | 19.1  | 18.7  | 18.4  | 18.3  |
| 22.5° | 159.6 | 148.4 | 112.9 | 71.5  | 34.0  | 19.8  | 18.1  | 17.3  | 16.8  | 16.5  | 16.4  |
| 25°   | 159.6 | 146.1 | 104.2 | 56.5  | 22.3  | 17.3  | 16.2  | 15.3  | 14.5  | 14.0  | 14.0  |
| 27.5° | 159.2 | 143.4 | 95.3  | 42.9  | 17.7  | 15.5  | 14.3  | 12.9  | 12.0  | 11.4  | 11.4  |
| 30°   | 158.2 | 140.2 | 86.6  | 30.0  | 15.5  | 13.8  | 12.3  | 10.6  | 9.4   | 8.9   | 8.7   |
| 32.5° | 156.8 | 136.8 | 76.6  | 21.1  | 13.9  | 12.1  | 10.3  | 8.6   | 7.5   | 6.8   | 6.8   |
| 35°   | 155.3 | 133.4 | 65.8  | 16.1  | 12.6  | 10.6  | 8.7   | 6.9   | 5.9   | 5.5   | 5.4   |
| 37.5° | 154.5 | 129.8 | 55.3  | 13.9  | 11.3  | 9.1   | 7.0   | 5.6   | 4.8   | 4.5   | 4.4   |
| 40°   | 155.1 | 127.1 | 45.0  | 12.5  | 10.1  | 7.7   | 5.8   | 4.7   | 4.1   | 3.6   | 3.6   |
| 42.5° | 158.3 | 125.5 | 35.2  | 11.4  | 9.0   | 6.5   | 4.8   | 3.8   | 3.2   | 2.9   | 2.9   |
| 45°   | 165.0 | 126.6 | 26.8  | 10.4  | 7.7   | 5.4   | 4.1   | 3.1   | 2.4   | 2.1   | 2.1   |
| 47.5° | 176.2 | 131.0 | 20.3  | 9.5   | 6.6   | 4.4   | 3.3   | 2.4   | 1.9   | 1.6   | 1.5   |
| 50°   | 192.6 | 139.7 | 15.9  | 8.7   | 5.5   | 3.7   | 2.7   | 1.9   | 1.4   | 1.2   | 1.2   |
| 52.5° | 216.2 | 154.7 | 13.6  | 7.7   | 4.5   | 3.1   | 2.2   | 1.4   | 1.1   | 0.9   | 0.9   |
| 55°   | 245.1 | 173.8 | 12.3  | 6.8   | 3.6   | 2.5   | 1.8   | 1.1   | 0.8   | 0.7   | 0.5   |
| 57.5° | 268.6 | 189.0 | 11.5  | 5.9   | 3.1   | 2.2   | 1.3   | 0.9   | 0.7   | 0.4   | 0.4   |
| 60°   | 289.4 | 198.7 | 10.2  | 4.9   | 2.6   | 1.8   | 1.1   | 0.7   | 0.4   | 0.3   | 0.3   |
| 62.5° | 306.2 | 205.1 | 8.4   | 4.0   | 2.2   | 1.4   | 0.9   | 0.5   | 0.4   | 0.3   | 0.3   |
| 65°   | 325.3 | 210.3 | 6.9   | 3.1   | 1.9   | 1.2   | 0.8   | 0.4   | 0.3   | 0.3   | 0.3   |
| 67.5° | 362.7 | 221.8 | 5.2   | 2.4   | 1.4   | 1.0   | 0.7   | 0.4   | 0.3   | 0.2   | 0.2   |
| 70°   | 377.3 | 208.3 | 4.1   | 2.0   | 1.1   | 0.9   | 0.7   | 0.4   | 0.2   | 0.2   | 0.2   |
| 72.5° | 321.1 | 155.9 | 3.2   | 1.6   | 1.0   | 0.8   | 0.7   | 0.4   | 0.3   | 0.3   | 0.2   |
| 75°   | 254.7 | 105.3 | 2.5   | 1.3   | 1.0   | 0.9   | 0.7   | 0.7   | 0.5   | 0.4   | 0.4   |
| 77.5° | 162.6 | 46.6  | 2.0   | 1.1   | 1.0   | 1.1   | 1.0   | 0.7   | 0.7   | 0.5   | 0.5   |
| 80°   | 48.5  | 11.2  | 1.4   | 0.9   | 0.8   | 0.9   | 1.0   | 0.7   | 0.4   | 0.3   | 0.3   |
| 82.5° | 10.5  | 2.6   | 0.9   | 0.4   | 0.5   | 0.4   | 0.7   | 0.7   | 0.4   | 0.3   | 0.3   |
| 85°   | 3.5   | 1.0   | 0.5   | 0.4   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.2   |
| 87.5° | 0.2   | 0.3   | 0.3   | 0.2   | 0.2   | 0.2   | 0.2   | 0.1   | 0.1   | 0.2   | 0.2   |
| 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)