

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: P833325

Luminaire Tested: **TTN-D1-830-U-MQ-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P833325  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G3-2308-121-4) AND  
Test Lab: INNOVATION CENTER  
Issue Date: 5/15/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: TTN-D1-830-U-MQ-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
3000K, 80 CRI LEDS AND MEDIUM DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

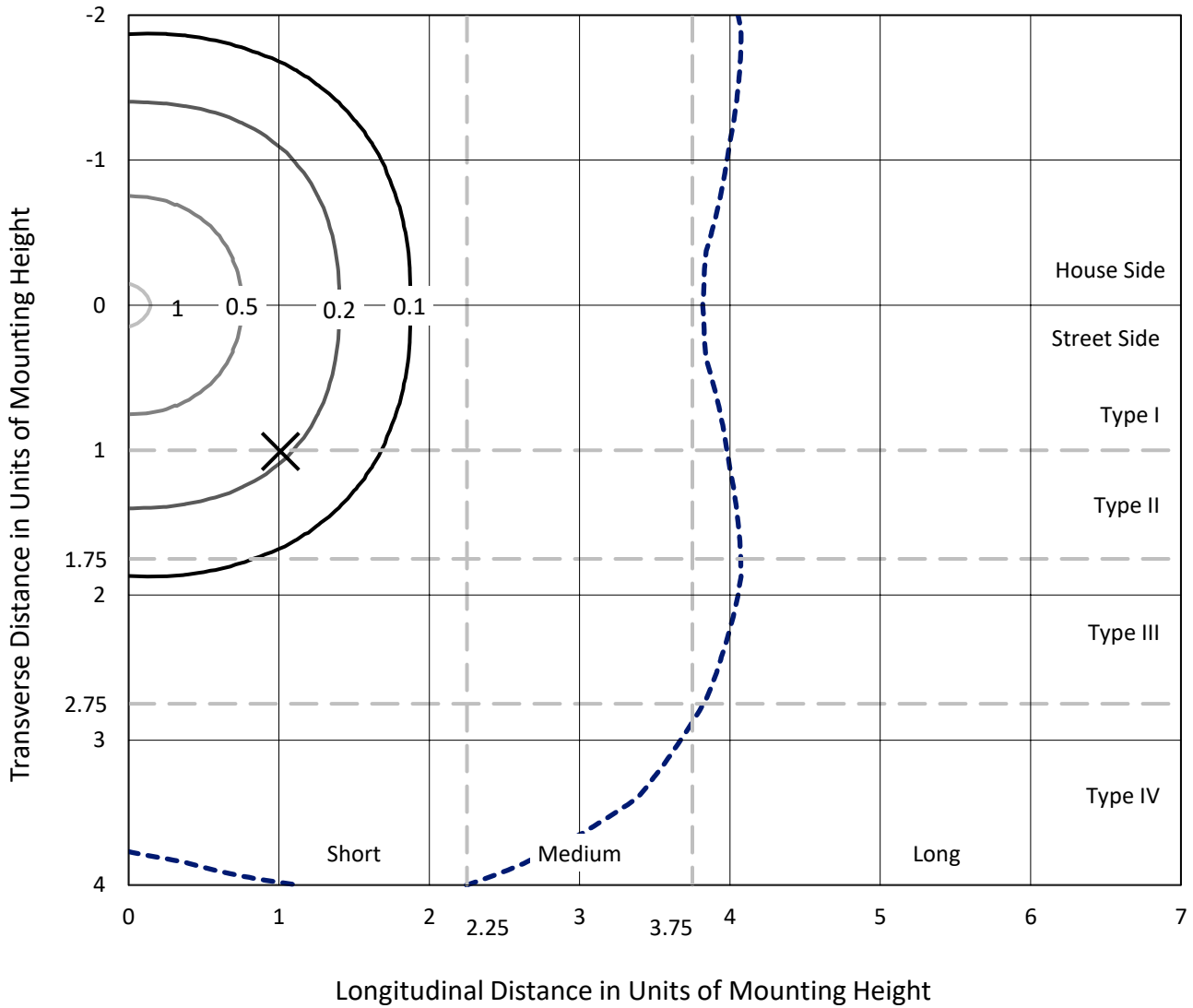
Lumens per Lamp: N/A  
Luminaire Lumens: 3899.7 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B2 - U4 - G1  
  
Input Watts (W): 33.4  
Input Voltage (V): NR  
Input Current (Ain): 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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

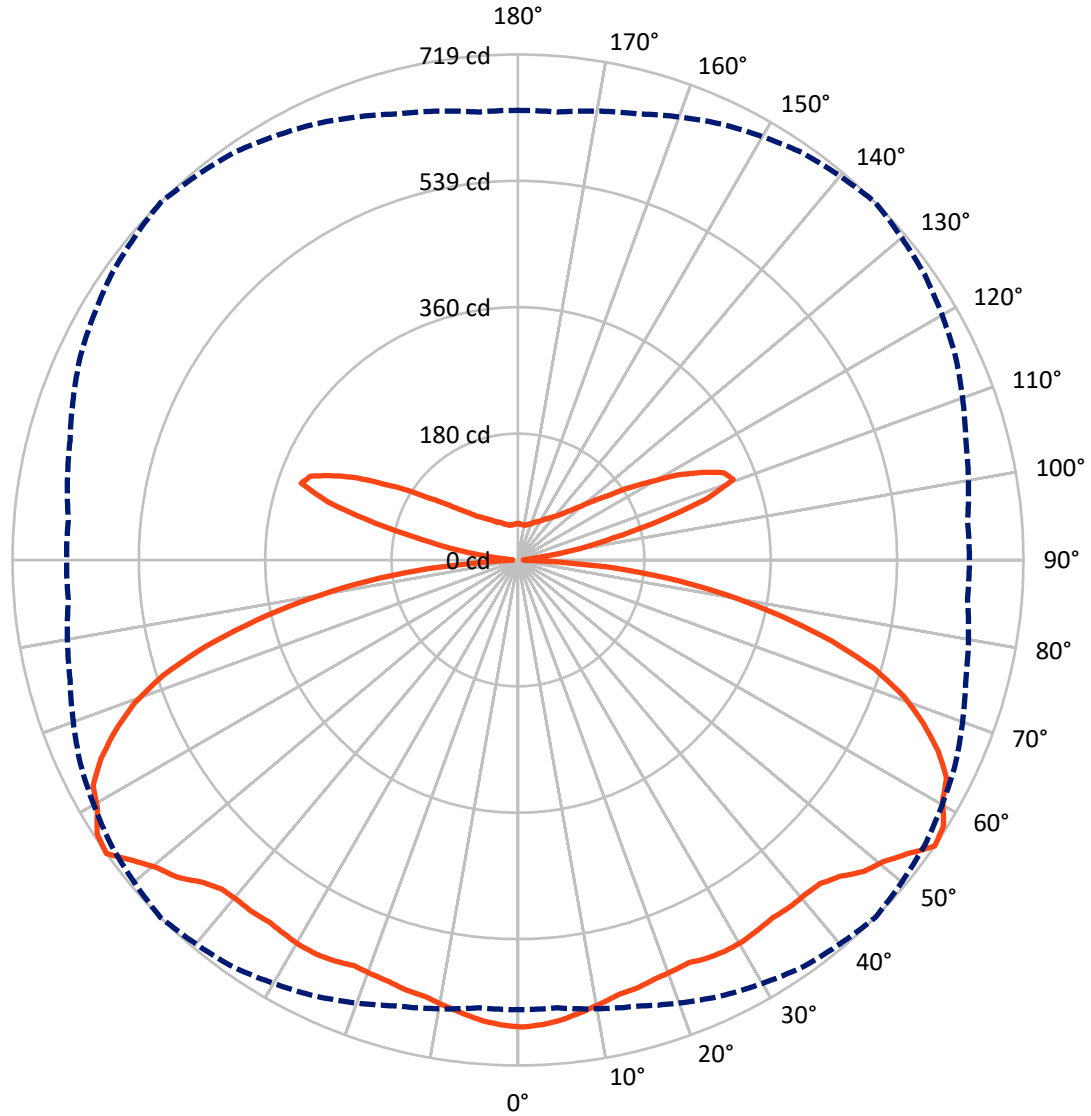
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 55-Deg Vertical

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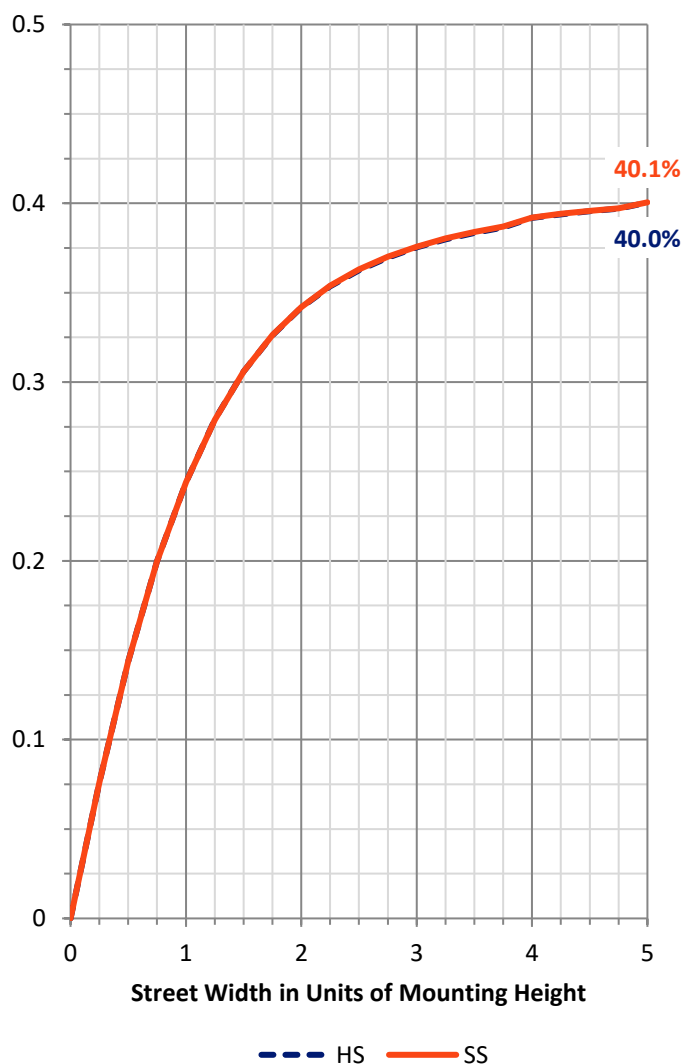
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1579.5   | 370.3  | 1949.9 |
|                    | % Fixture | 40.5     | 9.5    | 50.0   |
| <b>Street Side</b> | Lumens    | 1579.5   | 370.3  | 1949.9 |
|                    | % Fixture | 40.5     | 9.5    | 50.0   |
| <b>Total</b>       | Lumens    | 3159.0   | 740.7  | 3899.7 |
|                    | % Fixture | 81.0     | 19.0   | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 62.2   | 1.6       |
| 10°-20°   | 178.5  | 4.6       |
| 20°-30°   | 288.6  | 7.4       |
| 30°-40°   | 390.5  | 10.0      |
| 40°-50°   | 489.1  | 12.5      |
| 50°-60°   | 599.3  | 15.4      |
| 60°-70°   | 600.8  | 15.4      |
| 70°-80°   | 433.5  | 11.1      |
| 80°-90°   | 116.6  | 3.0       |
| 90°-100°  | 16.5   | 0.4       |
| 100°-110° | 168.0  | 4.3       |
| 110°-120° | 245.6  | 6.3       |
| 120°-130° | 142.5  | 3.7       |
| 130°-140° | 75.5   | 1.9       |
| 140°-150° | 44.9   | 1.2       |
| 150°-160° | 27.6   | 0.7       |
| 160°-170° | 15.1   | 0.4       |
| 170°-180° | 4.9    | 0.1       |
| 0°-90°    | 3159.0 | 81.0      |
| 0°-180°   | 3899.7 | 100.0     |

**Coefficient of Utilization**



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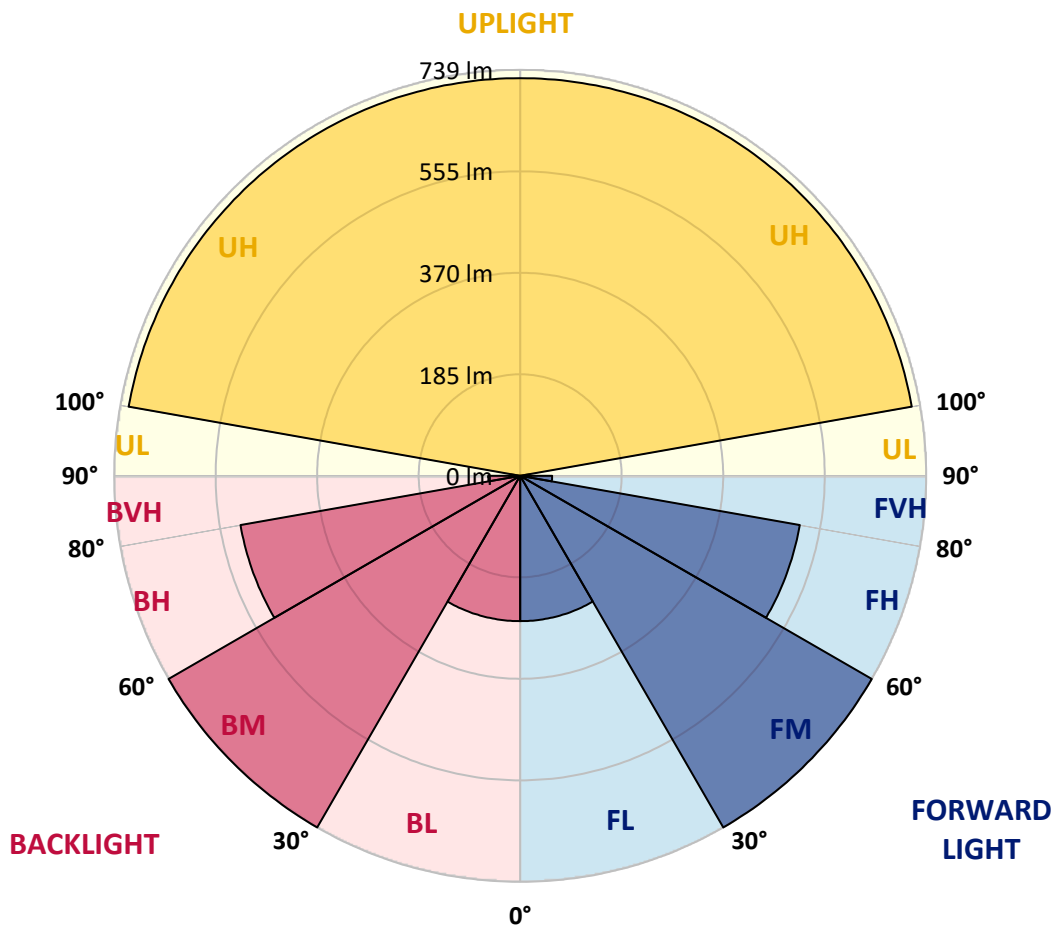
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |         |        |
|----------------|--------|-----------|-------------------------|---------|--------|
|                |        |           | B                       | U       | G      |
| FL (0°-30°)    | 264.6  | 6.8       |                         |         |        |
| FM (30°-60°)   | 739.4  | 19.0      |                         |         |        |
| FH (60°-80°)   | 517.2  | 13.3      |                         |         | G0/660 |
| FVH (80°-90°)  | 58.3   | 1.5       |                         |         | G1/100 |
| BL (0°-30°)    | 264.6  | 6.8       | B1/500                  |         |        |
| BM (30°-60°)   | 739.4  | 19.0      | B1/1000                 |         |        |
| BH (60°-80°)   | 517.2  | 13.3      | B2/1000                 |         | G0/660 |
| BVH (80°-90°)  | 58.3   | 1.5       |                         |         | G1/100 |
| UL (90°-100°)  | 16.5   | 0.4       |                         | U2/50   |        |
| UH (100°-180°) | 724.2  | 18.6      |                         | U4/1000 |        |

**BUG Rating: B2-U4-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 | 664.4 |
| 2.5°   | 661.9 | 661.9 | 661.9 | 659.5 | 661.9 | 661.9 | 661.9 | 661.9 | 661.9 | 661.9 | 661.9 |
| 5°     | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 | 657.0 |
| 7.5°   | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 | 649.5 |
| 10°    | 639.6 | 639.6 | 639.6 | 639.6 | 642.1 | 642.1 | 642.1 | 642.1 | 639.6 | 639.6 | 639.6 |
| 12.5°  | 632.2 | 632.2 | 632.2 | 634.7 | 634.7 | 634.7 | 634.7 | 634.7 | 634.7 | 634.7 | 632.2 |
| 15°    | 629.7 | 629.7 | 629.7 | 629.7 | 632.2 | 632.2 | 632.2 | 632.2 | 629.7 | 629.7 | 629.7 |
| 17.5°  | 624.8 | 624.8 | 624.8 | 627.2 | 627.2 | 627.2 | 627.2 | 627.2 | 624.8 | 624.8 | 624.8 |
| 20°    | 619.8 | 619.8 | 622.3 | 622.3 | 624.8 | 624.8 | 624.8 | 622.3 | 622.3 | 619.8 | 622.3 |
| 22.5°  | 619.8 | 619.8 | 619.8 | 622.3 | 622.3 | 622.3 | 622.3 | 619.8 | 619.8 | 619.8 | 619.8 |
| 25°    | 619.8 | 619.8 | 622.3 | 624.8 | 624.8 | 627.2 | 624.8 | 622.3 | 619.8 | 619.8 | 619.8 |
| 27.5°  | 622.3 | 622.3 | 624.8 | 627.2 | 627.2 | 629.7 | 627.2 | 624.8 | 622.3 | 622.3 | 622.3 |
| 30°    | 622.3 | 622.3 | 624.8 | 627.2 | 627.2 | 629.7 | 627.2 | 624.8 | 622.3 | 622.3 | 622.3 |
| 32.5°  | 617.3 | 619.8 | 622.3 | 624.8 | 627.2 | 627.2 | 627.2 | 624.8 | 622.3 | 619.8 | 619.8 |
| 35°    | 614.8 | 617.3 | 619.8 | 622.3 | 624.8 | 624.8 | 624.8 | 622.3 | 619.8 | 617.3 | 617.3 |
| 37.5°  | 612.4 | 612.4 | 617.3 | 619.8 | 622.3 | 627.2 | 624.8 | 619.8 | 617.3 | 614.8 | 614.8 |
| 40°    | 609.9 | 612.4 | 614.8 | 619.8 | 622.3 | 627.2 | 624.8 | 619.8 | 614.8 | 612.4 | 612.4 |
| 42.5°  | 609.9 | 609.9 | 614.8 | 619.8 | 624.8 | 629.7 | 627.2 | 622.3 | 614.8 | 612.4 | 609.9 |
| 45°    | 612.4 | 614.8 | 622.3 | 632.2 | 637.1 | 642.1 | 639.6 | 632.2 | 619.8 | 614.8 | 612.4 |
| 47.5°  | 622.3 | 624.8 | 632.2 | 642.1 | 654.5 | 661.9 | 654.5 | 642.1 | 632.2 | 624.8 | 622.3 |
| 50°    | 627.2 | 629.7 | 642.1 | 654.5 | 671.9 | 674.3 | 671.9 | 654.5 | 642.1 | 629.7 | 629.7 |
| 52.5°  | 637.1 | 637.1 | 652.0 | 674.3 | 689.2 | 694.2 | 689.2 | 676.8 | 652.0 | 639.6 | 637.1 |
| 55°    | 639.6 | 639.6 | 657.0 | 684.3 | 706.6 | 719.0 | 706.6 | 686.7 | 659.5 | 642.1 | 642.1 |
| 57.5°  | 624.8 | 629.7 | 652.0 | 679.3 | 706.6 | 714.0 | 706.6 | 681.8 | 654.5 | 632.2 | 629.7 |
| 60°    | 607.4 | 614.8 | 634.7 | 666.9 | 686.7 | 694.2 | 689.2 | 666.9 | 637.1 | 614.8 | 612.4 |
| 62.5°  | 590.0 | 600.0 | 622.3 | 647.1 | 676.8 | 684.3 | 676.8 | 647.1 | 622.3 | 600.0 | 590.0 |
| 65°    | 552.9 | 562.8 | 595.0 | 624.8 | 652.0 | 657.0 | 654.5 | 624.8 | 595.0 | 562.8 | 557.8 |
| 67.5°  | 515.7 | 523.1 | 545.4 | 592.5 | 614.8 | 622.3 | 617.3 | 590.0 | 547.9 | 523.1 | 520.6 |
| 70°    | 476.0 | 483.4 | 503.3 | 547.9 | 570.2 | 582.6 | 572.7 | 547.9 | 503.3 | 483.4 | 481.0 |
| 72.5°  | 423.9 | 433.9 | 456.2 | 495.8 | 518.1 | 530.5 | 520.6 | 495.8 | 456.2 | 431.4 | 426.4 |
| 75°    | 362.0 | 369.4 | 396.7 | 428.9 | 451.2 | 461.1 | 453.7 | 431.4 | 396.7 | 369.4 | 366.9 |
| 77.5°  | 295.0 | 302.5 | 327.3 | 359.5 | 371.9 | 381.8 | 374.4 | 357.0 | 327.3 | 302.5 | 300.0 |
| 80°    | 223.1 | 230.6 | 252.9 | 277.7 | 290.1 | 300.0 | 292.5 | 275.2 | 252.9 | 230.6 | 228.1 |
| 82.5°  | 146.3 | 153.7 | 173.5 | 193.4 | 205.8 | 215.7 | 208.3 | 190.9 | 176.0 | 153.7 | 151.2 |
| 85°    | 62.0  | 69.4  | 86.8  | 106.6 | 116.5 | 126.4 | 119.0 | 104.1 | 86.8  | 71.9  | 69.4  |
| 87.5°  | 5.0   | 7.4   | 7.4   | 9.9   | 7.4   | 12.4  | 7.4   | 7.4   | 7.4   | 7.4   | 7.4   |
| 90°    | 6.3   | 6.3   | 7.6   | 7.6   | 7.6   | 7.6   | 7.6   | 7.6   | 7.6   | 6.3   | 6.3   |
| 92.5°  | 6.3   | 6.3   | 6.3   | 8.9   | 10.1  | 8.9   | 10.1  | 7.6   | 7.6   | 6.3   | 6.3   |
| 95°    | 7.6   | 7.6   | 8.9   | 11.4  | 13.9  | 15.2  | 15.2  | 8.9   | 8.9   | 7.6   | 7.6   |
| 97.5°  | 10.1  | 11.4  | 11.4  | 13.9  | 22.8  | 41.8  | 25.3  | 12.7  | 12.7  | 11.4  | 10.1  |
| 100°   | 16.5  | 17.7  | 17.7  | 31.7  | 67.2  | 90.0  | 64.6  | 32.9  | 24.1  | 17.7  | 17.7  |
| 102.5° | 53.2  | 55.8  | 68.4  | 102.6 | 152.1 | 138.1 | 116.6 | 110.2 | 76.0  | 60.8  | 58.3  |
| 105°   | 135.6 | 134.3 | 144.5 | 171.1 | 212.9 | 209.1 | 192.6 | 174.9 | 150.8 | 139.4 | 139.4 |
| 107.5° | 178.7 | 178.7 | 187.5 | 210.4 | 242.0 | 282.6 | 286.4 | 226.8 | 198.9 | 186.3 | 185.0 |
| 110°   | 201.5 | 201.5 | 209.1 | 228.1 | 269.9 | 326.9 | 324.4 | 280.0 | 245.8 | 229.4 | 226.8 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 206.5 | 207.8 | 218.0 | 247.1 | 292.7 | 318.1 | 306.7 | 288.9 | 273.7 | 261.0 | 258.5 |
| 115°   | 214.2 | 214.2 | 225.6 | 253.4 | 278.8 | 288.9 | 276.2 | 262.3 | 252.2 | 247.1 | 249.6 |
| 117.5° | 211.6 | 215.4 | 218.0 | 233.2 | 249.6 | 257.2 | 250.9 | 231.9 | 224.3 | 221.8 | 218.0 |
| 120°   | 196.4 | 196.4 | 198.9 | 206.5 | 215.4 | 219.2 | 216.7 | 204.0 | 197.7 | 196.4 | 193.9 |
| 122.5° | 174.9 | 176.1 | 174.9 | 178.7 | 185.0 | 188.8 | 186.3 | 176.1 | 173.6 | 173.6 | 171.1 |
| 125°   | 153.3 | 153.3 | 152.1 | 154.6 | 158.4 | 157.1 | 158.4 | 153.3 | 152.1 | 152.1 | 150.8 |
| 127.5° | 138.1 | 136.9 | 134.3 | 135.6 | 136.9 | 136.9 | 138.1 | 133.1 | 134.3 | 135.6 | 134.3 |
| 130°   | 122.9 | 122.9 | 120.4 | 120.4 | 120.4 | 117.8 | 120.4 | 117.8 | 119.1 | 120.4 | 121.6 |
| 132.5° | 109.0 | 109.0 | 105.2 | 103.9 | 103.9 | 103.9 | 105.2 | 103.9 | 106.4 | 109.0 | 109.0 |
| 135°   | 97.6  | 97.6  | 93.8  | 95.0  | 95.0  | 93.8  | 95.0  | 93.8  | 96.3  | 97.6  | 97.6  |
| 137.5° | 88.7  | 88.7  | 86.2  | 86.2  | 86.2  | 84.9  | 86.2  | 86.2  | 87.4  | 90.0  | 91.2  |
| 140°   | 81.1  | 81.1  | 79.8  | 79.8  | 78.6  | 79.8  | 79.8  | 79.8  | 81.1  | 82.4  | 82.4  |
| 142.5° | 77.3  | 76.0  | 74.8  | 73.5  | 74.8  | 74.8  | 74.8  | 73.5  | 74.8  | 77.3  | 77.3  |
| 145°   | 71.0  | 71.0  | 69.7  | 69.7  | 69.7  | 71.0  | 69.7  | 69.7  | 71.0  | 71.0  | 72.2  |
| 147.5° | 67.2  | 67.2  | 65.9  | 67.2  | 67.2  | 67.2  | 67.2  | 65.9  | 67.2  | 67.2  | 68.4  |
| 150°   | 65.9  | 64.6  | 63.4  | 64.6  | 64.6  | 63.4  | 63.4  | 63.4  | 63.4  | 64.6  | 64.6  |
| 152.5° | 62.1  | 62.1  | 60.8  | 62.1  | 60.8  | 60.8  | 60.8  | 60.8  | 60.8  | 62.1  | 63.4  |
| 155°   | 59.6  | 59.6  | 58.3  | 59.6  | 59.6  | 59.6  | 59.6  | 59.6  | 59.6  | 59.6  | 59.6  |
| 157.5° | 57.0  | 58.3  | 57.0  | 57.0  | 57.0  | 57.0  | 57.0  | 57.0  | 57.0  | 58.3  | 58.3  |
| 160°   | 55.8  | 55.8  | 55.8  | 55.8  | 54.5  | 54.5  | 54.5  | 55.8  | 55.8  | 55.8  | 57.0  |
| 162.5° | 54.5  | 54.5  | 54.5  | 54.5  | 53.2  | 53.2  | 53.2  | 53.2  | 54.5  | 54.5  | 55.8  |
| 165°   | 54.5  | 53.2  | 53.2  | 53.2  | 52.0  | 52.0  | 52.0  | 52.0  | 53.2  | 54.5  | 53.2  |
| 167.5° | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 50.7  | 50.7  | 52.0  | 52.0  | 52.0  | 53.2  |
| 170°   | 52.0  | 52.0  | 50.7  | 50.7  | 50.7  | 50.7  | 50.7  | 50.7  | 50.7  | 50.7  | 52.0  |
| 172.5° | 52.0  | 52.0  | 52.0  | 52.0  | 50.7  | 50.7  | 50.7  | 50.7  | 50.7  | 52.0  | 52.0  |
| 175°   | 52.0  | 52.0  | 52.0  | 52.0  | 50.7  | 50.7  | 50.7  | 52.0  | 52.0  | 52.0  | 50.7  |
| 177.5° | 52.0  | 52.0  | 52.0  | 52.0  | 50.7  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  |
| 180°   | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  | 52.0  |

(END OF REPORT)