

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: P832844

Luminaire Tested: **TTN-D0-740-U-MQ-UPL2**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P832844  
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-D0-740-U-MQ-UPL2  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
4000K, 70 CRI LEDS AND MEDIUM DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

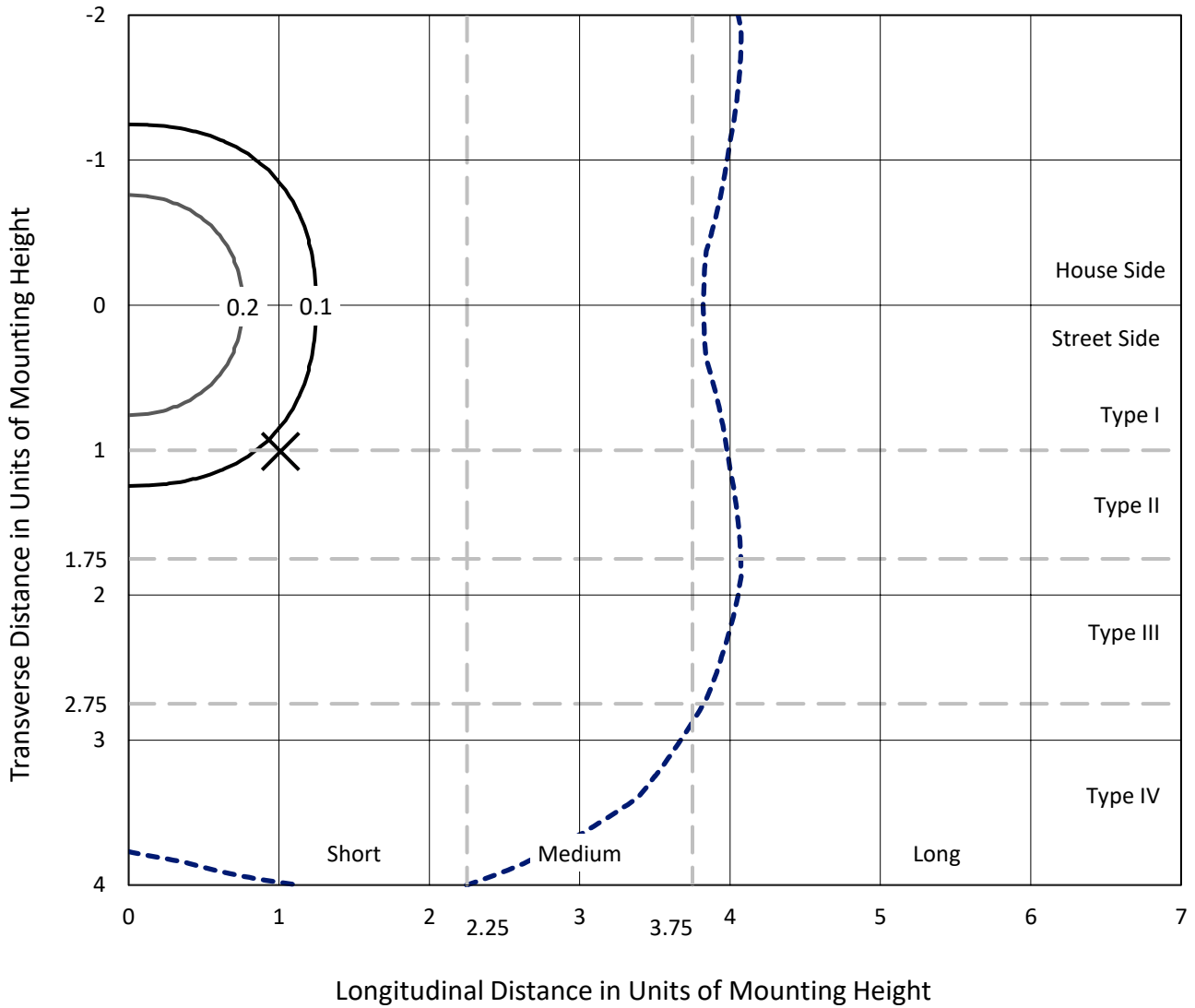
Lumens per Lamp: N/A  
Luminaire Lumens: 1859.5 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B1 - U4 - G1  
  
Input Watts (W): 15.2  
Input Voltage (V): NR  
Input Current (Ain): 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

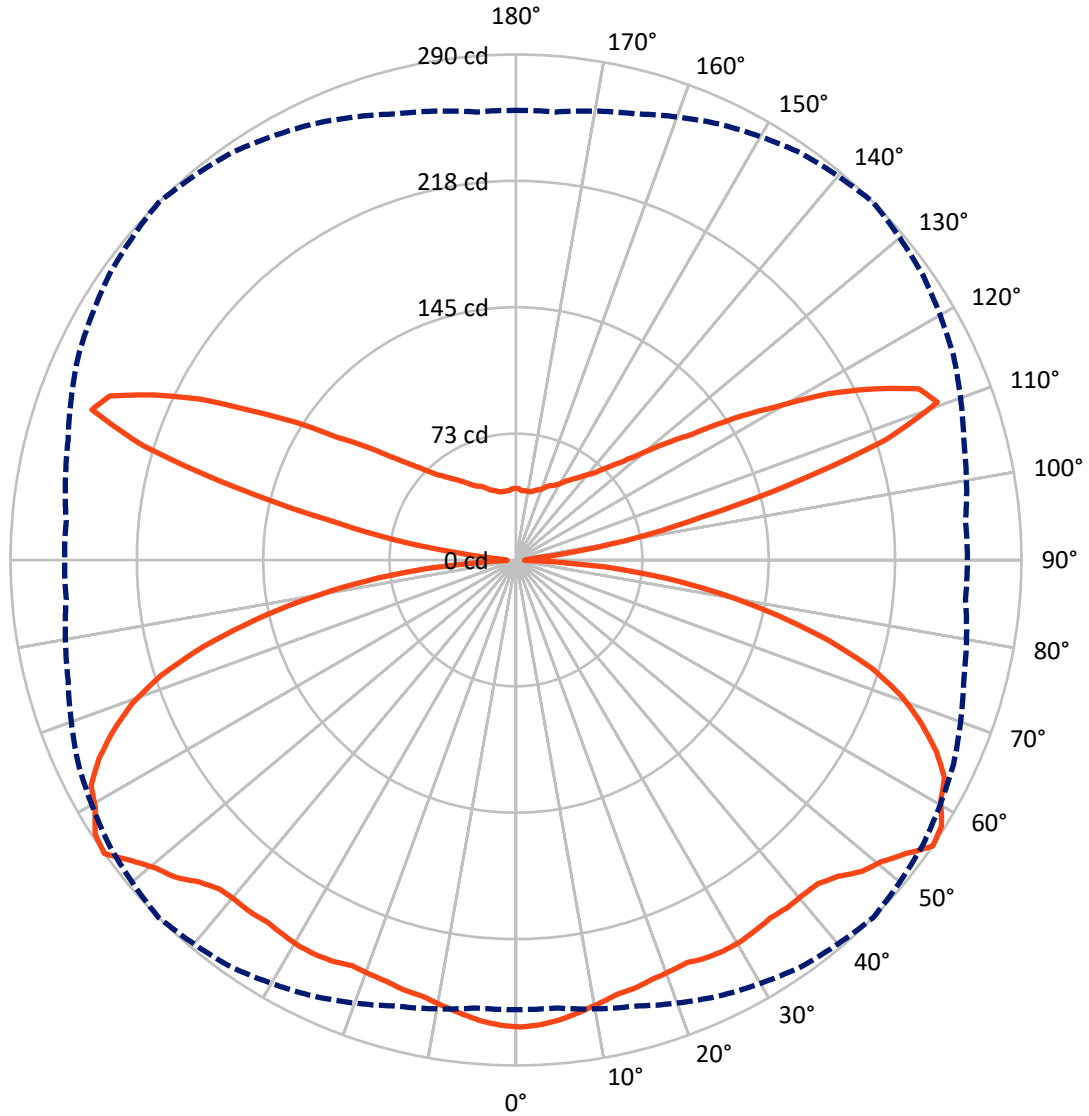
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.4 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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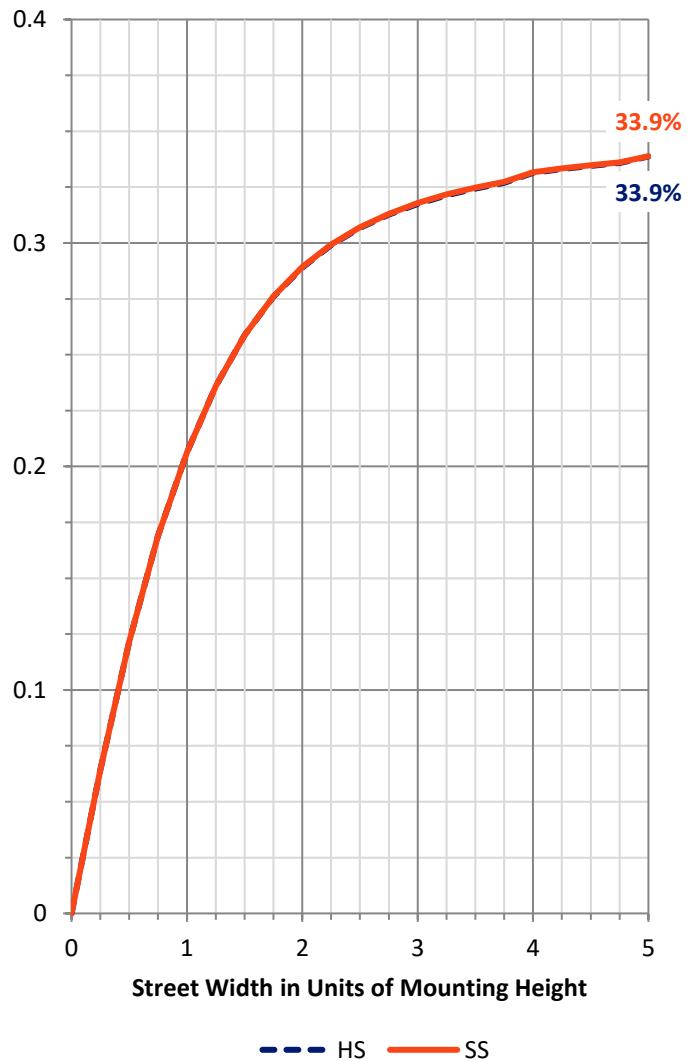
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 637.3    | 292.5  | 929.8  |
|                    | % Fixture | 34.3     | 15.7   | 50.0   |
| <b>Street Side</b> | Lumens    | 637.3    | 292.5  | 929.8  |
|                    | % Fixture | 34.3     | 15.7   | 50.0   |
| <b>Total</b>       | Lumens    | 1274.6   | 584.9  | 1859.5 |
|                    | % Fixture | 68.5     | 31.5   | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 25.1   | 1.3       |
| 10°-20°   | 72.0   | 3.9       |
| 20°-30°   | 116.4  | 6.3       |
| 30°-40°   | 157.5  | 8.5       |
| 40°-50°   | 197.3  | 10.6      |
| 50°-60°   | 241.7  | 13.0      |
| 60°-70°   | 242.3  | 13.0      |
| 70°-80°   | 174.9  | 9.4       |
| 80°-90°   | 47.4   | 2.5       |
| 90°-100°  | 13.1   | 0.7       |
| 100°-110° | 132.7  | 7.1       |
| 110°-120° | 194.0  | 10.4      |
| 120°-130° | 112.6  | 6.1       |
| 130°-140° | 59.7   | 3.2       |
| 140°-150° | 35.4   | 1.9       |
| 150°-160° | 21.8   | 1.2       |
| 160°-170° | 11.9   | 0.6       |
| 170°-180° | 3.9    | 0.2       |
| 0°-90°    | 1274.6 | 68.5      |
| 0°-180°   | 1859.5 | 100.0     |

**Coefficient of Utilization**



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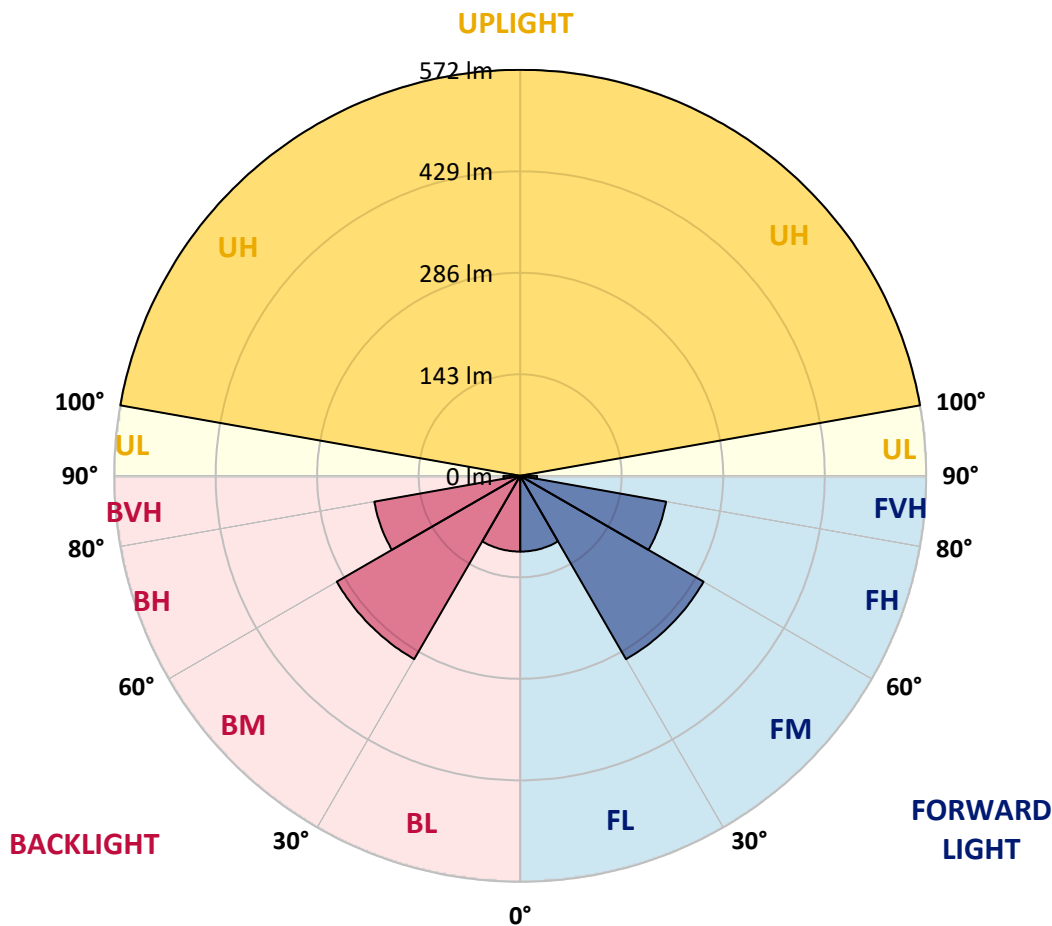
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |         |        |
|----------------|--------|-----------|-------------------------|---------|--------|
|                |        |           | B                       | U       | G      |
| FL (0°-30°)    | 106.7  | 5.7       |                         |         |        |
| FM (30°-60°)   | 298.3  | 16.0      |                         |         |        |
| FH (60°-80°)   | 208.6  | 11.2      |                         |         | G0/660 |
| FVH (80°-90°)  | 23.7   | 1.3       |                         |         | G1/100 |
| BL (0°-30°)    | 106.7  | 5.7       | B0/110                  |         |        |
| BM (30°-60°)   | 298.3  | 16.0      | B1/1000                 |         |        |
| BH (60°-80°)   | 208.6  | 11.2      | B1/500                  |         | G0/660 |
| BVH (80°-90°)  | 23.7   | 1.3       |                         |         | G1/100 |
| UL (90°-100°)  | 13.1   | 0.7       |                         | U2/50   |        |
| UH (100°-180°) | 571.8  | 30.8      |                         | U4/1000 |        |

**BUG Rating: B1-U4-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 | 268.0 |
| 2.5°   | 267.0 | 267.0 | 267.0 | 266.0 | 267.0 | 267.0 | 267.0 | 267.0 | 267.0 | 267.0 | 267.0 |
| 5°     | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 | 265.0 |
| 7.5°   | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 | 262.0 |
| 10°    | 258.0 | 258.0 | 258.0 | 258.0 | 259.0 | 259.0 | 259.0 | 259.0 | 258.0 | 258.0 | 258.0 |
| 12.5°  | 255.0 | 255.0 | 255.0 | 256.0 | 256.0 | 256.0 | 256.0 | 256.0 | 256.0 | 256.0 | 255.0 |
| 15°    | 254.0 | 254.0 | 254.0 | 254.0 | 255.0 | 255.0 | 255.0 | 255.0 | 254.0 | 254.0 | 254.0 |
| 17.5°  | 252.0 | 252.0 | 252.0 | 253.0 | 253.0 | 253.0 | 253.0 | 253.0 | 252.0 | 252.0 | 252.0 |
| 20°    | 250.0 | 250.0 | 251.0 | 251.0 | 252.0 | 252.0 | 252.0 | 251.0 | 251.0 | 250.0 | 251.0 |
| 22.5°  | 250.0 | 250.0 | 250.0 | 251.0 | 251.0 | 251.0 | 251.0 | 250.0 | 250.0 | 250.0 | 250.0 |
| 25°    | 250.0 | 250.0 | 251.0 | 252.0 | 252.0 | 253.0 | 252.0 | 251.0 | 250.0 | 250.0 | 250.0 |
| 27.5°  | 251.0 | 251.0 | 252.0 | 253.0 | 253.0 | 254.0 | 253.0 | 252.0 | 251.0 | 251.0 | 251.0 |
| 30°    | 251.0 | 251.0 | 252.0 | 253.0 | 253.0 | 254.0 | 253.0 | 252.0 | 251.0 | 251.0 | 251.0 |
| 32.5°  | 249.0 | 250.0 | 251.0 | 252.0 | 253.0 | 253.0 | 253.0 | 252.0 | 251.0 | 250.0 | 250.0 |
| 35°    | 248.0 | 249.0 | 250.0 | 251.0 | 252.0 | 252.0 | 252.0 | 251.0 | 250.0 | 249.0 | 249.0 |
| 37.5°  | 247.0 | 247.0 | 249.0 | 250.0 | 251.0 | 253.0 | 252.0 | 250.0 | 249.0 | 248.0 | 248.0 |
| 40°    | 246.0 | 247.0 | 248.0 | 250.0 | 251.0 | 253.0 | 252.0 | 250.0 | 248.0 | 247.0 | 247.0 |
| 42.5°  | 246.0 | 246.0 | 248.0 | 250.0 | 252.0 | 254.0 | 253.0 | 251.0 | 248.0 | 247.0 | 246.0 |
| 45°    | 247.0 | 248.0 | 251.0 | 255.0 | 257.0 | 259.0 | 258.0 | 255.0 | 250.0 | 248.0 | 247.0 |
| 47.5°  | 251.0 | 252.0 | 255.0 | 259.0 | 264.0 | 267.0 | 264.0 | 259.0 | 255.0 | 252.0 | 251.0 |
| 50°    | 253.0 | 254.0 | 259.0 | 264.0 | 271.0 | 272.0 | 271.0 | 264.0 | 259.0 | 254.0 | 254.0 |
| 52.5°  | 257.0 | 257.0 | 263.0 | 272.0 | 278.0 | 280.0 | 278.0 | 273.0 | 263.0 | 258.0 | 257.0 |
| 55°    | 258.0 | 258.0 | 265.0 | 276.0 | 285.0 | 290.0 | 285.0 | 277.0 | 266.0 | 259.0 | 259.0 |
| 57.5°  | 252.0 | 254.0 | 263.0 | 274.0 | 285.0 | 288.0 | 285.0 | 275.0 | 264.0 | 255.0 | 254.0 |
| 60°    | 245.0 | 248.0 | 256.0 | 269.0 | 277.0 | 280.0 | 278.0 | 269.0 | 257.0 | 248.0 | 247.0 |
| 62.5°  | 238.0 | 242.0 | 251.0 | 261.0 | 273.0 | 276.0 | 273.0 | 261.0 | 251.0 | 242.0 | 238.0 |
| 65°    | 223.0 | 227.0 | 240.0 | 252.0 | 263.0 | 265.0 | 264.0 | 252.0 | 240.0 | 227.0 | 225.0 |
| 67.5°  | 208.0 | 211.0 | 220.0 | 239.0 | 248.0 | 251.0 | 249.0 | 238.0 | 221.0 | 211.0 | 210.0 |
| 70°    | 192.0 | 195.0 | 203.0 | 221.0 | 230.0 | 235.0 | 231.0 | 221.0 | 203.0 | 195.0 | 194.0 |
| 72.5°  | 171.0 | 175.0 | 184.0 | 200.0 | 209.0 | 214.0 | 210.0 | 200.0 | 184.0 | 174.0 | 172.0 |
| 75°    | 146.0 | 149.0 | 160.0 | 173.0 | 182.0 | 186.0 | 183.0 | 174.0 | 160.0 | 149.0 | 148.0 |
| 77.5°  | 119.0 | 122.0 | 132.0 | 145.0 | 150.0 | 154.0 | 151.0 | 144.0 | 132.0 | 122.0 | 121.0 |
| 80°    | 90.0  | 93.0  | 102.0 | 112.0 | 117.0 | 121.0 | 118.0 | 111.0 | 102.0 | 93.0  | 92.0  |
| 82.5°  | 59.0  | 62.0  | 70.0  | 78.0  | 83.0  | 87.0  | 84.0  | 77.0  | 71.0  | 62.0  | 61.0  |
| 85°    | 25.0  | 28.0  | 35.0  | 43.0  | 47.0  | 51.0  | 48.0  | 42.0  | 35.0  | 29.0  | 28.0  |
| 87.5°  | 2.0   | 3.0   | 3.0   | 4.0   | 3.0   | 5.0   | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |
| 90°    | 5.0   | 5.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 6.0   | 5.0   | 5.0   |
| 92.5°  | 5.0   | 5.0   | 5.0   | 7.0   | 8.0   | 7.0   | 8.0   | 6.0   | 6.0   | 5.0   | 5.0   |
| 95°    | 6.0   | 6.0   | 7.0   | 9.0   | 11.0  | 12.0  | 12.0  | 7.0   | 7.0   | 6.0   | 6.0   |
| 97.5°  | 8.0   | 9.0   | 9.0   | 11.0  | 18.0  | 33.0  | 20.0  | 10.0  | 10.0  | 9.0   | 8.0   |
| 100°   | 13.0  | 14.0  | 14.0  | 25.0  | 53.0  | 71.1  | 51.0  | 26.0  | 19.0  | 14.0  | 14.0  |
| 102.5° | 42.0  | 44.0  | 54.0  | 81.1  | 120.1 | 109.1 | 92.1  | 87.1  | 60.0  | 48.0  | 46.0  |
| 105°   | 107.1 | 106.1 | 114.1 | 135.1 | 168.1 | 165.1 | 152.1 | 138.1 | 119.1 | 110.1 | 110.1 |
| 107.5° | 141.1 | 141.1 | 148.1 | 166.1 | 191.1 | 223.2 | 226.2 | 179.1 | 157.1 | 147.1 | 146.1 |
| 110°   | 159.1 | 159.1 | 165.1 | 180.1 | 213.2 | 258.2 | 256.2 | 221.2 | 194.1 | 181.1 | 179.1 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 163.1 | 164.1 | 172.1 | 195.1 | 231.2 | 251.2 | 242.2 | 228.2 | 216.2 | 206.2 | 204.2 |
| 115°   | 169.1 | 169.1 | 178.1 | 200.2 | 220.2 | 228.2 | 218.2 | 207.2 | 199.2 | 195.1 | 197.1 |
| 117.5° | 167.1 | 170.1 | 172.1 | 184.1 | 197.1 | 203.2 | 198.1 | 183.1 | 177.1 | 175.1 | 172.1 |
| 120°   | 155.1 | 155.1 | 157.1 | 163.1 | 170.1 | 173.1 | 171.1 | 161.1 | 156.1 | 155.1 | 153.1 |
| 122.5° | 138.1 | 139.1 | 138.1 | 141.1 | 146.1 | 149.1 | 147.1 | 139.1 | 137.1 | 137.1 | 135.1 |
| 125°   | 121.1 | 121.1 | 120.1 | 122.1 | 125.1 | 124.1 | 125.1 | 121.1 | 120.1 | 120.1 | 119.1 |
| 127.5° | 109.1 | 108.1 | 106.1 | 107.1 | 108.1 | 108.1 | 109.1 | 105.1 | 106.1 | 107.1 | 106.1 |
| 130°   | 97.1  | 97.1  | 95.1  | 95.1  | 95.1  | 93.1  | 95.1  | 93.1  | 94.1  | 95.1  | 96.1  |
| 132.5° | 86.1  | 86.1  | 83.1  | 82.1  | 82.1  | 82.1  | 83.1  | 82.1  | 84.1  | 86.1  | 86.1  |
| 135°   | 77.1  | 77.1  | 74.1  | 75.1  | 75.1  | 74.1  | 75.1  | 74.1  | 76.1  | 77.1  | 77.1  |
| 137.5° | 70.1  | 70.1  | 68.1  | 68.1  | 68.1  | 67.1  | 68.1  | 68.1  | 69.1  | 71.1  | 72.1  |
| 140°   | 64.0  | 64.0  | 63.0  | 63.0  | 62.0  | 63.0  | 63.0  | 63.0  | 64.0  | 65.0  | 65.0  |
| 142.5° | 61.0  | 60.0  | 59.0  | 58.0  | 59.0  | 59.0  | 59.0  | 58.0  | 59.0  | 61.0  | 61.0  |
| 145°   | 56.0  | 56.0  | 55.0  | 55.0  | 55.0  | 56.0  | 55.0  | 55.0  | 56.0  | 56.0  | 57.0  |
| 147.5° | 53.0  | 53.0  | 52.0  | 53.0  | 53.0  | 53.0  | 53.0  | 52.0  | 53.0  | 53.0  | 54.0  |
| 150°   | 52.0  | 51.0  | 50.0  | 51.0  | 51.0  | 50.0  | 50.0  | 50.0  | 50.0  | 51.0  | 51.0  |
| 152.5° | 49.0  | 49.0  | 48.0  | 49.0  | 48.0  | 48.0  | 48.0  | 48.0  | 48.0  | 49.0  | 50.0  |
| 155°   | 47.0  | 47.0  | 46.0  | 47.0  | 47.0  | 47.0  | 47.0  | 47.0  | 47.0  | 47.0  | 47.0  |
| 157.5° | 45.0  | 46.0  | 45.0  | 45.0  | 45.0  | 45.0  | 45.0  | 45.0  | 45.0  | 46.0  | 46.0  |
| 160°   | 44.0  | 44.0  | 44.0  | 44.0  | 43.0  | 43.0  | 43.0  | 44.0  | 44.0  | 44.0  | 45.0  |
| 162.5° | 43.0  | 43.0  | 43.0  | 43.0  | 42.0  | 42.0  | 42.0  | 42.0  | 43.0  | 43.0  | 44.0  |
| 165°   | 43.0  | 42.0  | 42.0  | 42.0  | 41.0  | 41.0  | 41.0  | 41.0  | 42.0  | 43.0  | 42.0  |
| 167.5° | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 40.0  | 40.0  | 41.0  | 41.0  | 41.0  | 42.0  |
| 170°   | 41.0  | 41.0  | 40.0  | 40.0  | 40.0  | 40.0  | 40.0  | 40.0  | 40.0  | 40.0  | 41.0  |
| 172.5° | 41.0  | 41.0  | 41.0  | 41.0  | 40.0  | 40.0  | 40.0  | 40.0  | 40.0  | 41.0  | 41.0  |
| 175°   | 41.0  | 41.0  | 41.0  | 41.0  | 40.0  | 40.0  | 40.0  | 41.0  | 41.0  | 41.0  | 40.0  |
| 177.5° | 41.0  | 41.0  | 41.0  | 41.0  | 40.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  |
| 180°   | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  | 41.0  |

(END OF REPORT)