

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: P832884

Luminaire Tested: **TTN-D0-750-U-WQ-CG-UPL3**

Issue Date: 5/15/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P832884  
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-D0-750-U-WQ-CG-UPL3  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
5000K, 70 CRI LEDS AND WIDE DISTRIBUTION WITH CLEAR GLASS  
Light Source: -  
Ballast/Driver: -

**Summary**

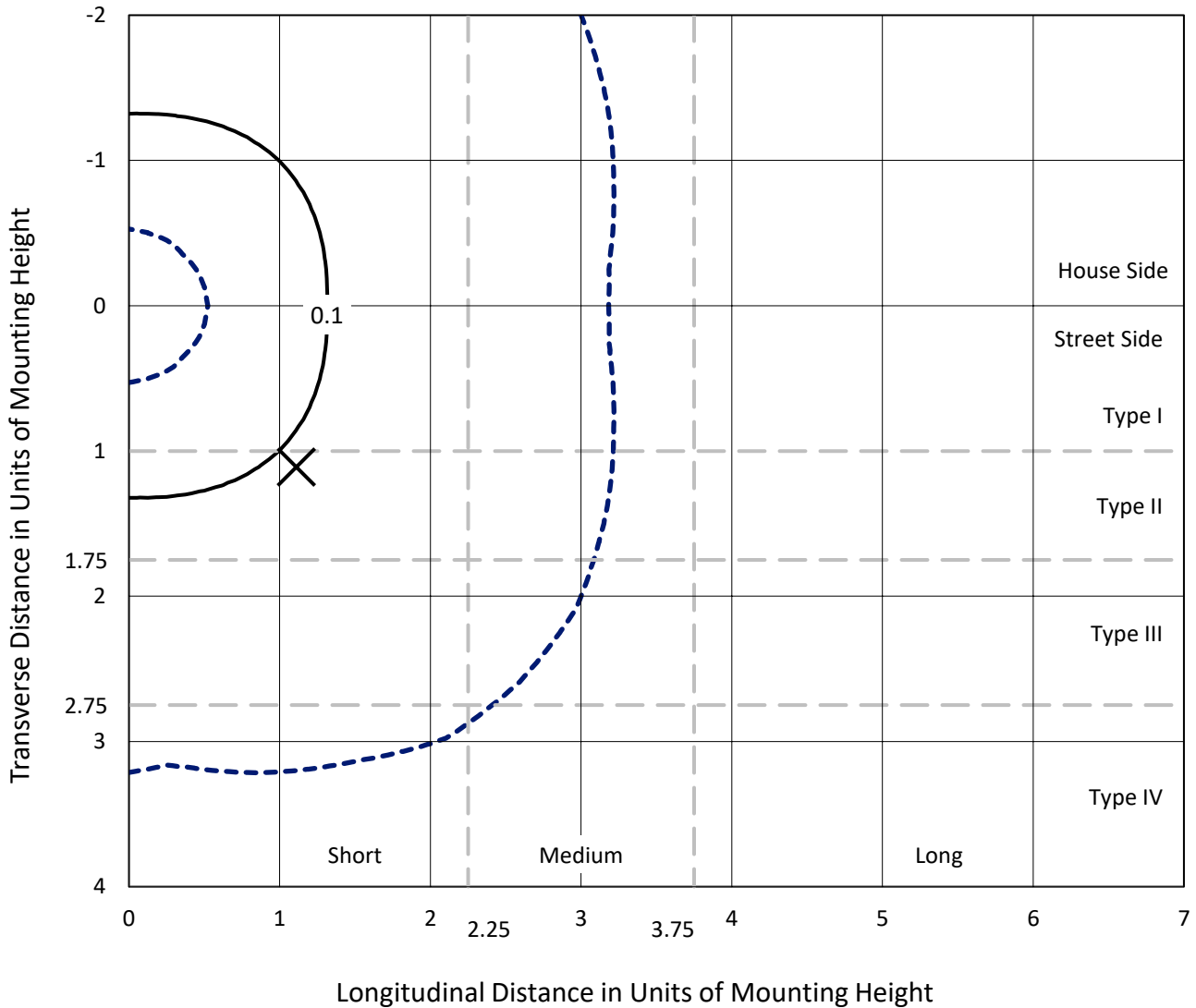
Lumens per Lamp: N/A  
Luminaire Lumens: 1966.5 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 0.71' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B1 - U4 - G1  
  
Input Watts (W): 17.7  
Input Voltage (V): NR  
Input Current (Ain): 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

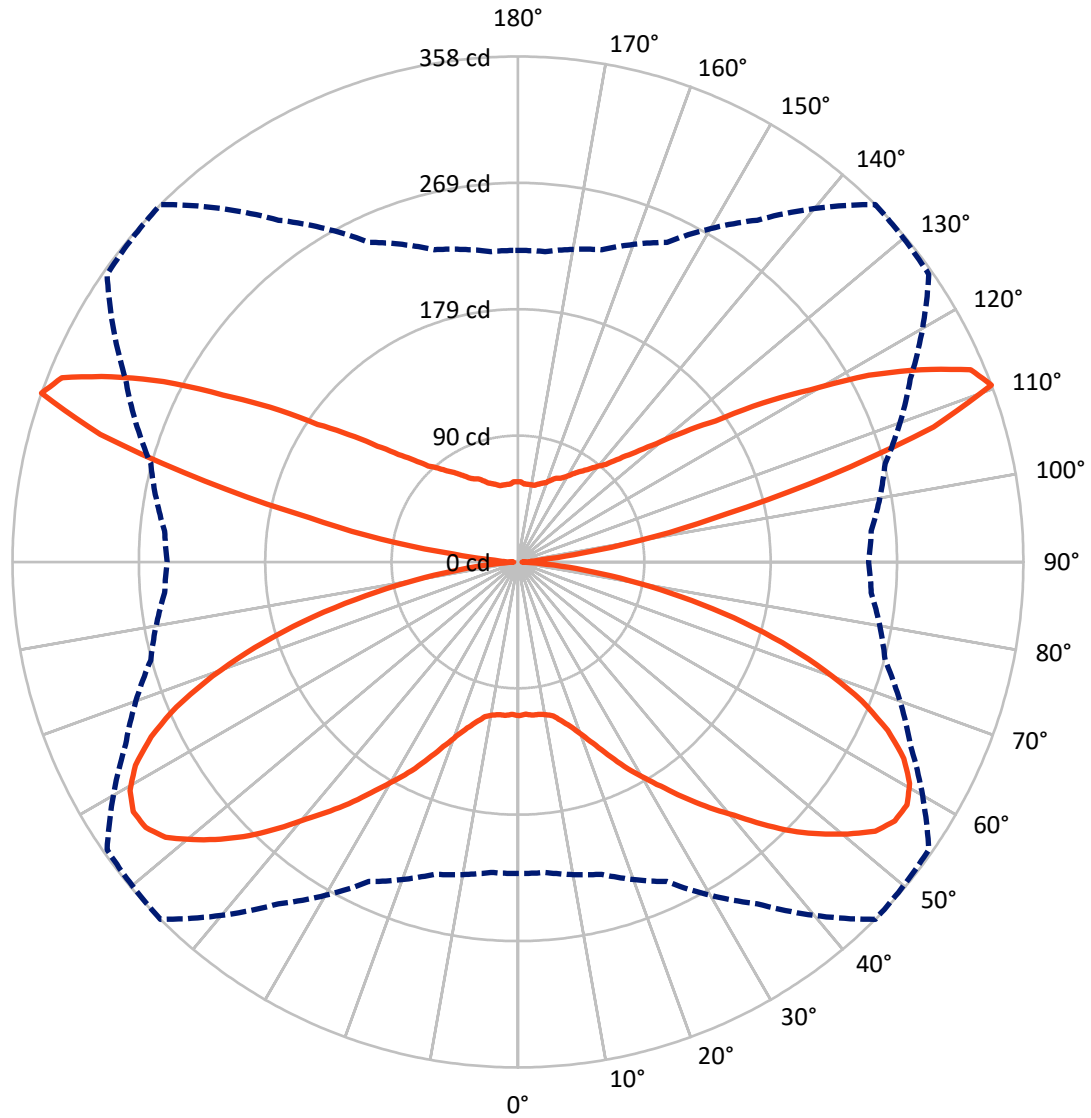
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.2 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 110-Deg Vertical

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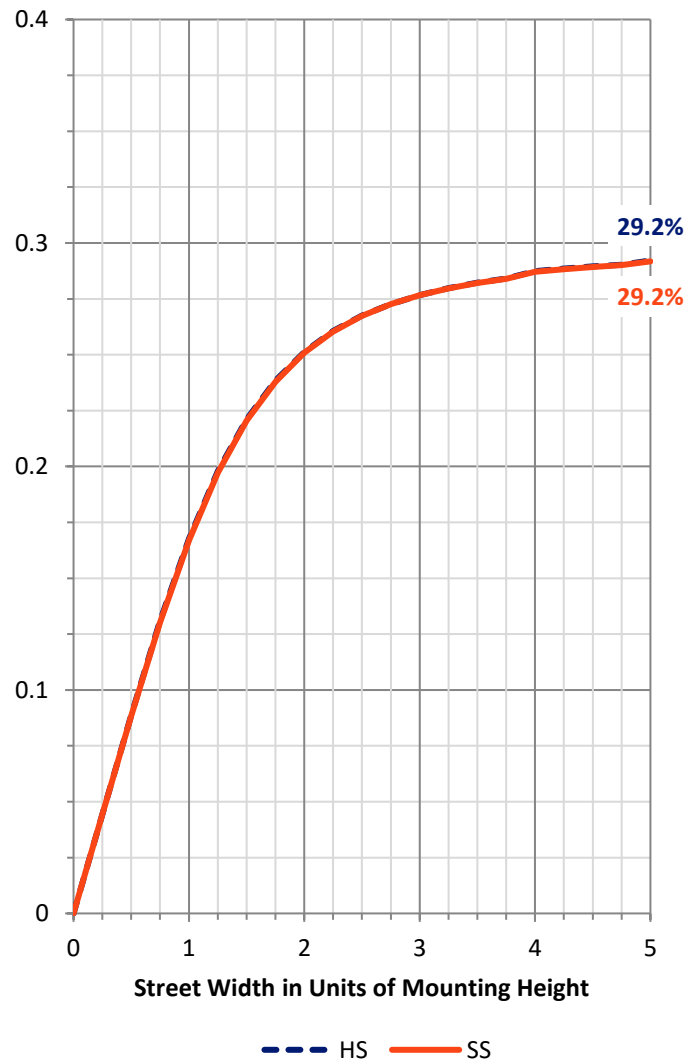
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 577.5    | 405.8  | 983.2  |
|                    | % Fixture | 29.4     | 20.6   | 50.0   |
| <b>Street Side</b> | Lumens    | 577.5    | 405.8  | 983.2  |
|                    | % Fixture | 29.4     | 20.6   | 50.0   |
| <b>Total</b>       | Lumens    | 1154.9   | 811.5  | 1966.5 |
|                    | % Fixture | 58.7     | 41.3   | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 10.4   | 0.5       |
| 10°-20°   | 33.6   | 1.7       |
| 20°-30°   | 70.7   | 3.6       |
| 30°-40°   | 127.5  | 6.5       |
| 40°-50°   | 202.6  | 10.3      |
| 50°-60°   | 270.4  | 13.7      |
| 60°-70°   | 261.2  | 13.3      |
| 70°-80°   | 151.4  | 7.7       |
| 80°-90°   | 27.2   | 1.4       |
| 90°-100°  | 18.1   | 0.9       |
| 100°-110° | 184.1  | 9.4       |
| 110°-120° | 269.1  | 13.7      |
| 120°-130° | 156.2  | 7.9       |
| 130°-140° | 82.7   | 4.2       |
| 140°-150° | 49.1   | 2.5       |
| 150°-160° | 30.3   | 1.5       |
| 160°-170° | 16.5   | 0.8       |
| 170°-180° | 5.4    | 0.3       |
| 0°-90°    | 1154.9 | 58.7      |
| 0°-180°   | 1966.5 | 100.0     |



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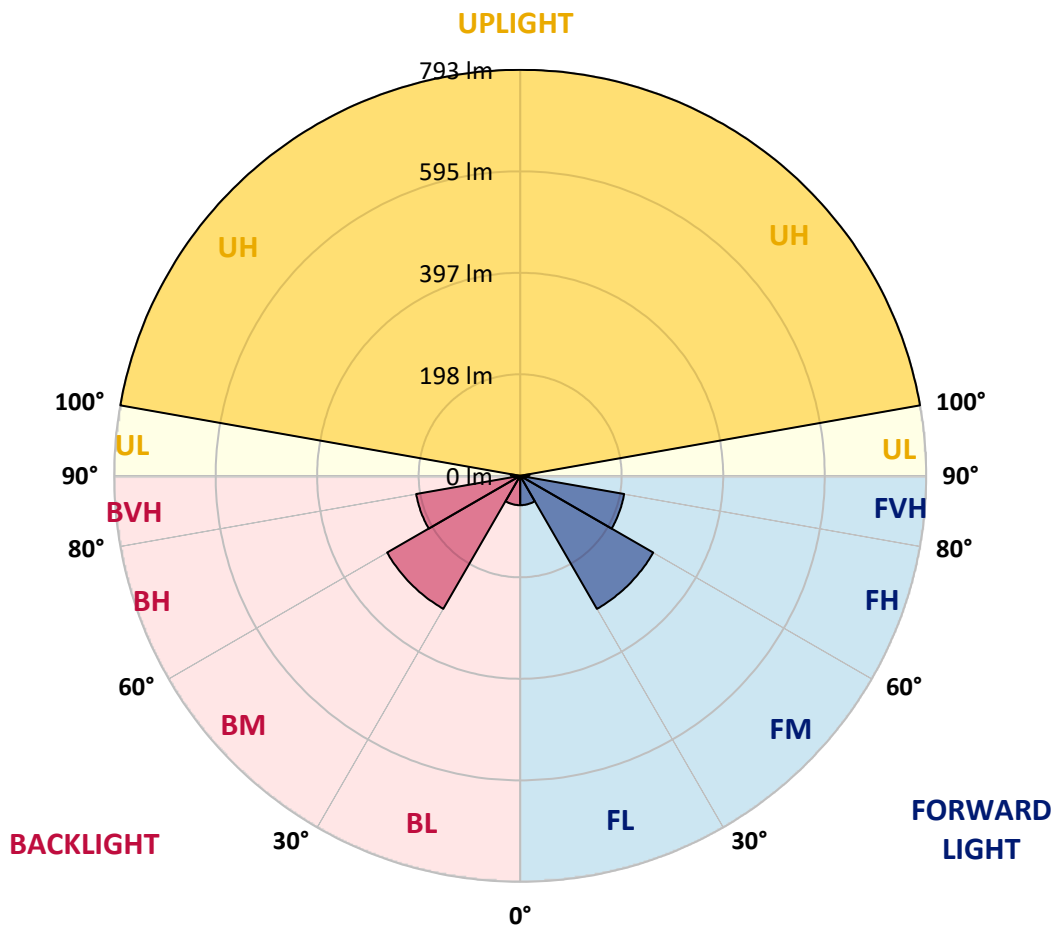
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |         |        |
|----------------|--------|-----------|-------------------------|---------|--------|
|                |        |           | B                       | U       | G      |
| FL (0°-30°)    | 57.4   | 2.9       |                         |         |        |
| FM (30°-60°)   | 300.2  | 15.3      |                         |         |        |
| FH (60°-80°)   | 206.3  | 10.5      |                         |         | G0/660 |
| FVH (80°-90°)  | 13.6   | 0.7       |                         |         | G1/100 |
| BL (0°-30°)    | 57.4   | 2.9       | B0/110                  |         |        |
| BM (30°-60°)   | 300.2  | 15.3      | B1/1000                 |         |        |
| BH (60°-80°)   | 206.3  | 10.5      | B1/500                  |         | G0/660 |
| BVH (80°-90°)  | 13.6   | 0.7       |                         |         | G1/100 |
| UL (90°-100°)  | 18.1   | 0.9       |                         | U2/50   |        |
| UH (100°-180°) | 793.4  | 40.3      |                         | 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°     | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 |
| 2.5°   | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 | 108.0 |
| 5°     | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 |
| 7.5°   | 108.0 | 108.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 109.0 | 108.0 | 108.0 |
| 10°    | 109.0 | 109.0 | 109.0 | 110.0 | 110.0 | 110.0 | 110.0 | 110.0 | 109.0 | 109.0 | 109.0 |
| 12.5°  | 111.0 | 111.0 | 112.0 | 112.0 | 112.0 | 112.0 | 112.0 | 112.0 | 112.0 | 111.0 | 111.0 |
| 15°    | 116.0 | 116.0 | 116.0 | 117.0 | 117.0 | 117.0 | 117.0 | 117.0 | 116.0 | 116.0 | 116.0 |
| 17.5°  | 121.0 | 121.0 | 122.0 | 122.0 | 123.0 | 123.0 | 123.0 | 122.0 | 122.0 | 122.0 | 122.0 |
| 20°    | 128.0 | 128.0 | 129.0 | 129.0 | 130.0 | 131.0 | 131.0 | 130.0 | 129.0 | 129.0 | 129.0 |
| 22.5°  | 137.0 | 138.0 | 138.0 | 138.0 | 139.0 | 141.0 | 140.0 | 139.0 | 138.0 | 138.0 | 138.0 |
| 25°    | 148.0 | 149.0 | 150.0 | 150.0 | 151.0 | 153.0 | 153.0 | 150.0 | 150.0 | 150.0 | 150.0 |
| 27.5°  | 161.0 | 162.0 | 163.0 | 163.0 | 164.0 | 166.0 | 165.0 | 163.0 | 163.0 | 162.0 | 162.0 |
| 30°    | 173.0 | 174.0 | 175.0 | 176.0 | 177.0 | 178.0 | 178.0 | 176.0 | 175.0 | 174.0 | 173.0 |
| 32.5°  | 185.0 | 185.0 | 187.0 | 189.0 | 191.0 | 191.0 | 192.0 | 189.0 | 187.0 | 185.0 | 184.0 |
| 35°    | 197.0 | 198.0 | 199.0 | 202.0 | 205.0 | 206.0 | 205.0 | 202.0 | 199.0 | 197.0 | 197.0 |
| 37.5°  | 210.0 | 211.0 | 212.0 | 216.0 | 219.0 | 221.0 | 219.0 | 216.0 | 212.0 | 210.0 | 209.0 |
| 40°    | 224.0 | 225.0 | 226.0 | 231.0 | 234.0 | 236.0 | 233.0 | 230.0 | 226.0 | 224.0 | 223.0 |
| 42.5°  | 237.0 | 239.0 | 241.0 | 247.0 | 252.0 | 254.0 | 251.0 | 246.0 | 242.0 | 237.0 | 236.0 |
| 45°    | 253.0 | 255.0 | 258.0 | 264.0 | 269.0 | 272.0 | 268.0 | 263.0 | 257.0 | 253.0 | 252.0 |
| 47.5°  | 266.0 | 268.0 | 271.0 | 279.0 | 286.0 | 288.0 | 284.0 | 278.0 | 270.0 | 265.0 | 264.0 |
| 50°    | 276.0 | 278.0 | 284.0 | 293.0 | 301.0 | 303.0 | 299.0 | 291.0 | 282.0 | 275.0 | 274.0 |
| 52.5°  | 284.0 | 286.0 | 293.0 | 305.0 | 314.0 | 317.0 | 312.0 | 303.0 | 291.0 | 283.0 | 282.0 |
| 55°    | 288.0 | 289.0 | 298.0 | 311.0 | 320.0 | 324.0 | 319.0 | 309.0 | 296.0 | 287.0 | 286.0 |
| 57.5°  | 285.0 | 286.0 | 296.0 | 310.0 | 320.0 | 325.0 | 320.0 | 308.0 | 294.0 | 285.0 | 284.0 |
| 60°    | 279.0 | 279.0 | 288.0 | 304.0 | 316.0 | 319.0 | 314.0 | 302.0 | 287.0 | 278.0 | 277.0 |
| 62.5°  | 268.0 | 267.0 | 278.0 | 292.0 | 304.0 | 307.0 | 303.0 | 291.0 | 276.0 | 267.0 | 266.0 |
| 65°    | 247.0 | 245.0 | 261.0 | 274.0 | 285.0 | 288.0 | 285.0 | 274.0 | 260.0 | 246.0 | 244.0 |
| 67.5°  | 222.0 | 219.0 | 234.0 | 249.0 | 259.0 | 263.0 | 259.0 | 250.0 | 234.0 | 220.0 | 219.0 |
| 70°    | 196.0 | 193.0 | 205.0 | 218.0 | 229.0 | 231.0 | 227.0 | 218.0 | 203.0 | 194.0 | 194.0 |
| 72.5°  | 165.0 | 162.0 | 173.0 | 183.0 | 194.0 | 196.0 | 192.0 | 184.0 | 173.0 | 164.0 | 163.0 |
| 75°    | 131.0 | 128.0 | 138.0 | 146.0 | 157.0 | 158.0 | 156.0 | 147.0 | 138.0 | 129.0 | 129.0 |
| 77.5°  | 97.0  | 94.0  | 102.0 | 109.0 | 118.0 | 118.0 | 117.0 | 110.0 | 102.0 | 96.0  | 96.0  |
| 80°    | 64.0  | 62.0  | 69.0  | 72.0  | 80.0  | 80.0  | 79.0  | 74.0  | 68.0  | 64.0  | 63.0  |
| 82.5°  | 36.0  | 34.0  | 40.0  | 41.0  | 47.0  | 47.0  | 46.0  | 42.0  | 38.0  | 35.0  | 35.0  |
| 85°    | 14.0  | 12.0  | 16.0  | 17.0  | 20.0  | 20.0  | 19.0  | 18.0  | 15.0  | 13.0  | 13.0  |
| 87.5°  | 1.0   | 1.0   | 2.0   | 2.0   | 3.0   | 3.0   | 3.0   | 2.0   | 2.0   | 1.0   | 1.0   |
| 90°    | 6.9   | 6.9   | 8.3   | 8.3   | 8.3   | 8.3   | 8.3   | 8.3   | 8.3   | 6.9   | 6.9   |
| 92.5°  | 6.9   | 6.9   | 6.9   | 9.7   | 11.1  | 9.7   | 11.1  | 8.3   | 8.3   | 6.9   | 6.9   |
| 95°    | 8.3   | 8.3   | 9.7   | 12.5  | 15.3  | 16.7  | 16.7  | 9.7   | 9.7   | 8.3   | 8.3   |
| 97.5°  | 11.1  | 12.5  | 12.5  | 15.3  | 25.0  | 45.8  | 27.8  | 13.9  | 13.9  | 12.5  | 11.1  |
| 100°   | 18.0  | 19.4  | 19.4  | 34.7  | 73.6  | 98.6  | 70.8  | 36.1  | 26.4  | 19.4  | 19.4  |
| 102.5° | 58.3  | 61.1  | 75.0  | 112.5 | 166.6 | 151.3 | 127.7 | 120.8 | 83.3  | 66.6  | 63.9  |
| 105°   | 148.6 | 147.2 | 158.3 | 187.4 | 233.3 | 229.1 | 211.0 | 191.6 | 165.2 | 152.7 | 152.7 |
| 107.5° | 195.8 | 195.8 | 205.5 | 230.5 | 265.2 | 309.6 | 313.8 | 248.5 | 218.0 | 204.1 | 202.7 |
| 110°   | 220.8 | 220.8 | 229.1 | 249.9 | 295.7 | 358.2 | 355.4 | 306.8 | 269.4 | 251.3 | 248.5 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 226.3 | 227.7 | 238.8 | 270.7 | 320.7 | 348.5 | 336.0 | 316.6 | 299.9 | 286.0 | 283.2 |
| 115°   | 234.6 | 234.6 | 247.1 | 277.7 | 305.5 | 316.6 | 302.7 | 287.4 | 276.3 | 270.7 | 273.5 |
| 117.5° | 231.9 | 236.0 | 238.8 | 255.5 | 273.5 | 281.8 | 274.9 | 254.1 | 245.8 | 243.0 | 238.8 |
| 120°   | 215.2 | 215.2 | 218.0 | 226.3 | 236.0 | 240.2 | 237.4 | 223.5 | 216.6 | 215.2 | 212.4 |
| 122.5° | 191.6 | 193.0 | 191.6 | 195.8 | 202.7 | 206.9 | 204.1 | 193.0 | 190.2 | 190.2 | 187.4 |
| 125°   | 168.0 | 168.0 | 166.6 | 169.4 | 173.6 | 172.2 | 173.6 | 168.0 | 166.6 | 166.6 | 165.2 |
| 127.5° | 151.3 | 149.9 | 147.2 | 148.6 | 149.9 | 149.9 | 151.3 | 145.8 | 147.2 | 148.6 | 147.2 |
| 130°   | 134.7 | 134.7 | 131.9 | 131.9 | 131.9 | 129.1 | 131.9 | 129.1 | 130.5 | 131.9 | 133.3 |
| 132.5° | 119.4 | 119.4 | 115.2 | 113.9 | 113.9 | 113.9 | 115.2 | 113.9 | 116.6 | 119.4 | 119.4 |
| 135°   | 106.9 | 106.9 | 102.7 | 104.1 | 104.1 | 102.7 | 104.1 | 102.7 | 105.5 | 106.9 | 106.9 |
| 137.5° | 97.2  | 97.2  | 94.4  | 94.4  | 94.4  | 93.0  | 94.4  | 94.4  | 95.8  | 98.6  | 100.0 |
| 140°   | 88.9  | 88.9  | 87.5  | 87.5  | 86.1  | 87.5  | 87.5  | 87.5  | 88.9  | 90.2  | 90.2  |
| 142.5° | 84.7  | 83.3  | 81.9  | 80.5  | 81.9  | 81.9  | 81.9  | 80.5  | 81.9  | 84.7  | 84.7  |
| 145°   | 77.8  | 77.8  | 76.4  | 76.4  | 76.4  | 77.8  | 76.4  | 76.4  | 77.8  | 77.8  | 79.1  |
| 147.5° | 73.6  | 73.6  | 72.2  | 73.6  | 73.6  | 73.6  | 73.6  | 72.2  | 73.6  | 73.6  | 75.0  |
| 150°   | 72.2  | 70.8  | 69.4  | 70.8  | 70.8  | 69.4  | 69.4  | 69.4  | 69.4  | 70.8  | 70.8  |
| 152.5° | 68.0  | 68.0  | 66.6  | 68.0  | 66.6  | 66.6  | 66.6  | 66.6  | 66.6  | 68.0  | 69.4  |
| 155°   | 65.3  | 65.3  | 63.9  | 65.3  | 65.3  | 65.3  | 65.3  | 65.3  | 65.3  | 65.3  | 65.3  |
| 157.5° | 62.5  | 63.9  | 62.5  | 62.5  | 62.5  | 62.5  | 62.5  | 62.5  | 62.5  | 63.9  | 63.9  |
| 160°   | 61.1  | 61.1  | 61.1  | 61.1  | 59.7  | 59.7  | 59.7  | 61.1  | 61.1  | 61.1  | 62.5  |
| 162.5° | 59.7  | 59.7  | 59.7  | 59.7  | 58.3  | 58.3  | 58.3  | 58.3  | 59.7  | 59.7  | 61.1  |
| 165°   | 59.7  | 58.3  | 58.3  | 58.3  | 56.9  | 56.9  | 56.9  | 56.9  | 58.3  | 59.7  | 58.3  |
| 167.5° | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 55.5  | 55.5  | 56.9  | 56.9  | 56.9  | 58.3  |
| 170°   | 56.9  | 56.9  | 55.5  | 55.5  | 55.5  | 55.5  | 55.5  | 55.5  | 55.5  | 55.5  | 56.9  |
| 172.5° | 56.9  | 56.9  | 56.9  | 56.9  | 55.5  | 55.5  | 55.5  | 55.5  | 55.5  | 56.9  | 56.9  |
| 175°   | 56.9  | 56.9  | 56.9  | 56.9  | 55.5  | 55.5  | 55.5  | 56.9  | 56.9  | 56.9  | 55.5  |
| 177.5° | 56.9  | 56.9  | 56.9  | 56.9  | 55.5  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  |
| 180°   | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  | 56.9  |

(END OF REPORT)