

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: P228823

Luminaire Tested: **ISC-AF-XXX-LED-E1-RW-XXB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P228823  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29765)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISC-AF-XXX-LED-E1-RW-XXB  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE, EMERGENCY MODE WITH BATTERY  
BACKPACK BOX  
LIGHT SQUARE WITH ACCUELED OPTICS-RECTANGULAR WIDE TYPE I  
Light Source: (16) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 647.5 lumens  
Efficiency: N/A  
Efficacy: 49.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B0 - U0 - G0

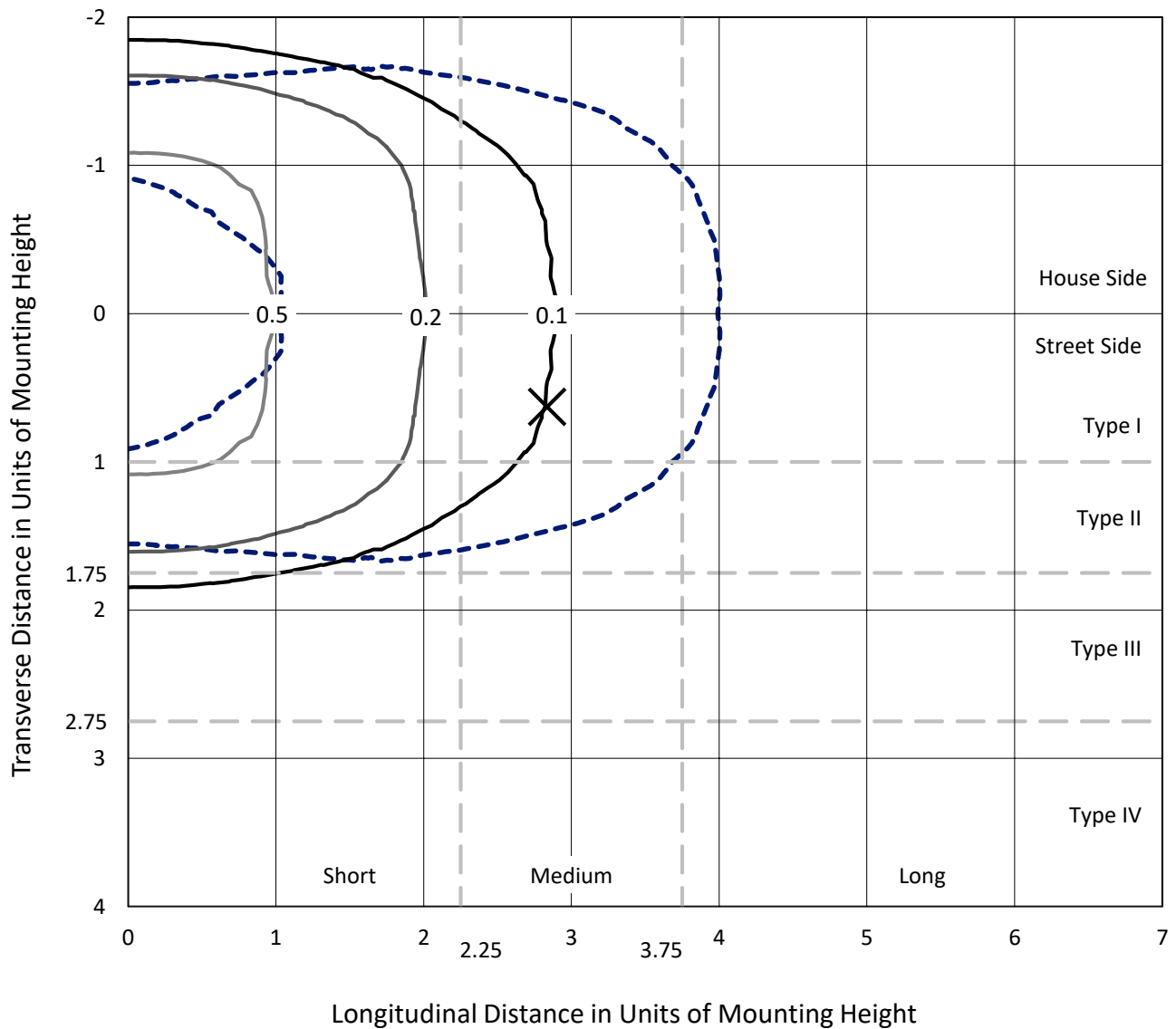
Input Watts (W): 13  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

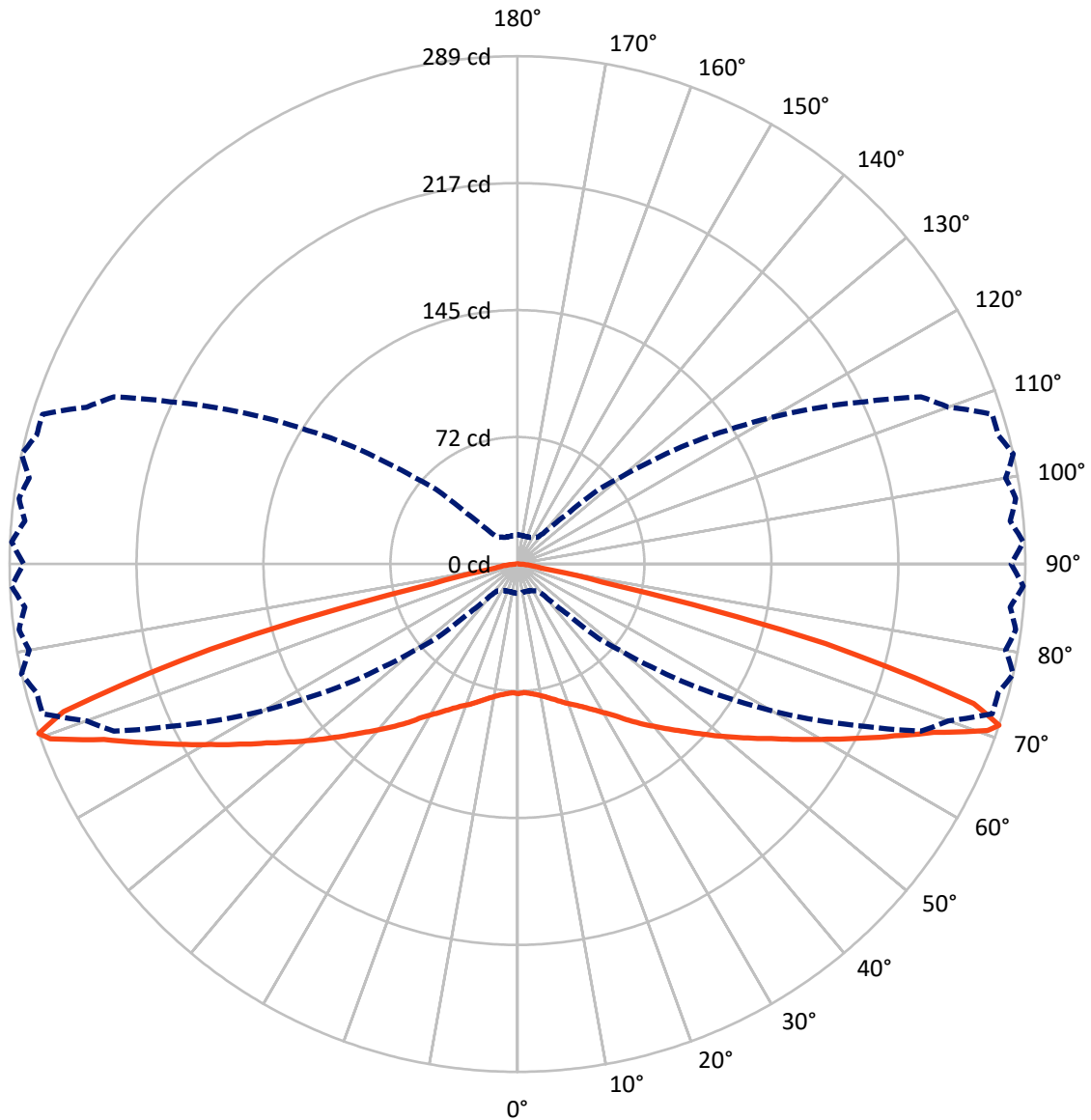
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.8 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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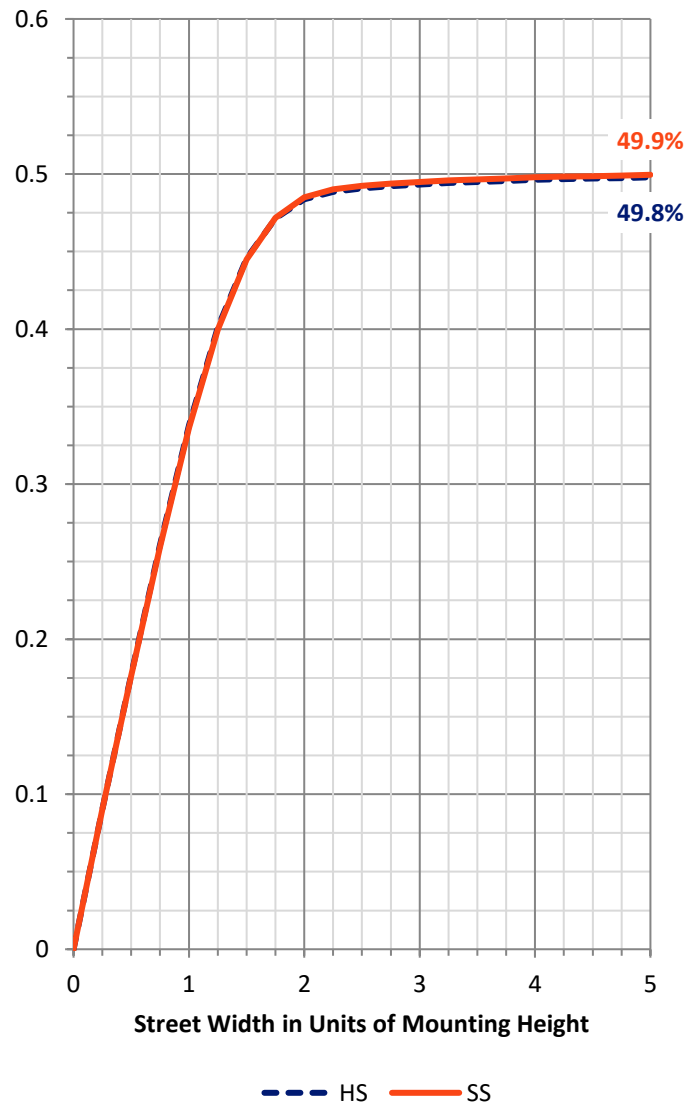
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| <b>House Side</b>  | Lumens    | 323.8    | 0.0    | 323.8 |
|                    | % Fixture | 50.0     | 0.0    | 50.0  |
| <b>Street Side</b> | Lumens    | 323.8    | 0.0    | 323.8 |
|                    | % Fixture | 50.0     | 0.0    | 50.0  |
| <b>Total</b>       | Lumens    | 647.5    | 0.0    | 647.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0 |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 7.1    | 1.1       |
| 10°-20°   | 22.3   | 3.4       |
| 20°-30°   | 41.7   | 6.4       |
| 30°-40°   | 72.5   | 11.2      |
| 40°-50°   | 118.3  | 18.3      |
| 50°-60°   | 163.2  | 25.2      |
| 60°-70°   | 154.9  | 23.9      |
| 70°-80°   | 63.7   | 9.8       |
| 80°-90°   | 3.8    | 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°    | 647.5  | 100.0     |
| 0°-180°   | 647.5  | 100.0     |



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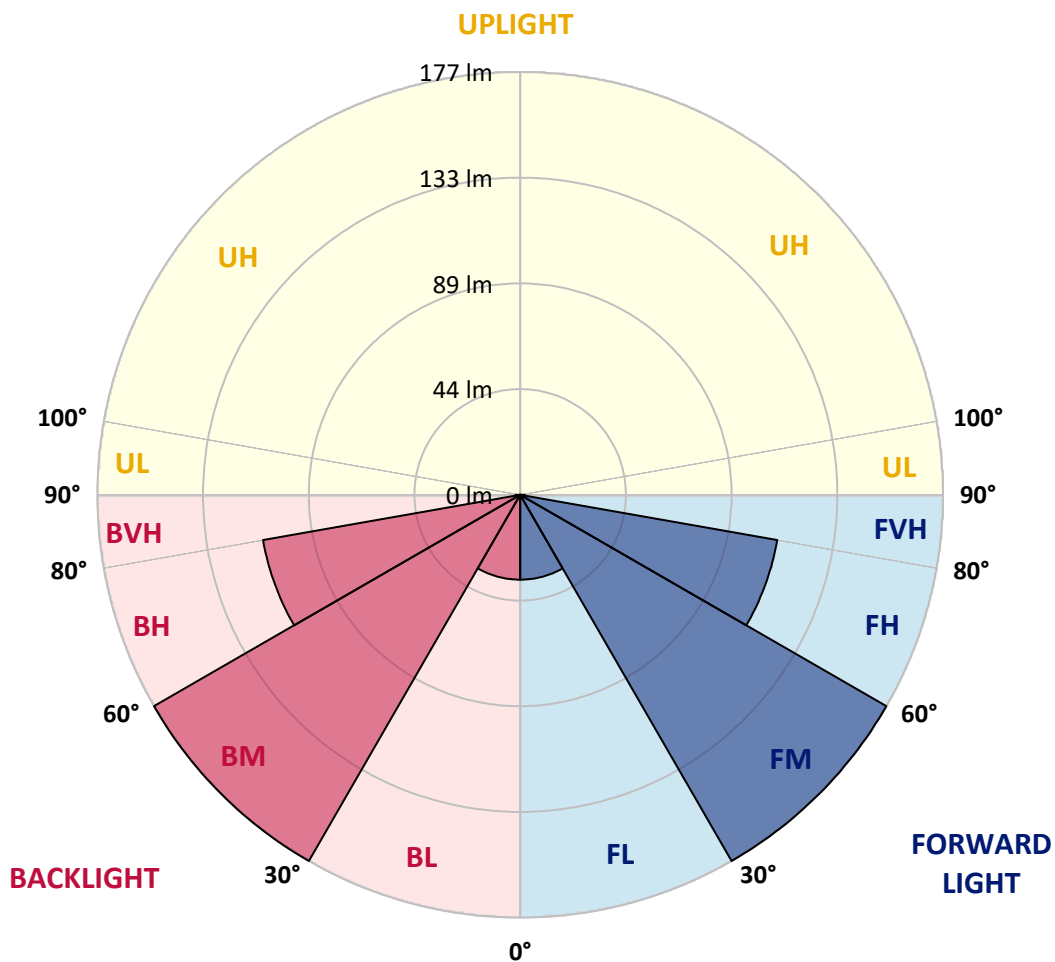
CATALOG NUMBER: ISC-AF-XXX-LED-E1-RW-XXB

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|--------|-----------|-------------------------|------|--------|
|      |             |        |           | B                       | U    | G      |
| FL   | (0°-30°)    | 35.5   | 5.5       |                         |      |        |
| FM   | (30°-60°)   | 177.0  | 27.3      |                         |      |        |
| FH   | (60°-80°)   | 109.3  | 16.9      |                         |      | G0/660 |
| FVH  | (80°-90°)   | 1.9    | 0.3       |                         |      | G0/10  |
| BL   | (0°-30°)    | 35.5   | 5.5       | B0/110                  |      |        |
| BM   | (30°-60°)   | 177.0  | 27.3      | B0/220                  |      |        |
| BH   | (60°-80°)   | 109.3  | 16.9      | B0/110                  |      | G0/110 |
| BVH  | (80°-90°)   | 1.9    | 0.3       |                         |      | 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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°   | 25°   | 35°   | 37.5° | 40°   | 42.5° | 45°   | 47.5° | 50°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  |
| 2.5°  | 73.6  | 73.3  | 73.6  | 73.6  | 73.8  | 73.8  | 73.8  | 73.8  | 73.6  | 74.0  | 74.0  |
| 5°    | 73.6  | 73.6  | 73.8  | 73.8  | 74.2  | 74.6  | 74.0  | 74.2  | 74.4  | 74.2  | 74.6  |
| 7.5°  | 73.6  | 73.6  | 73.6  | 74.0  | 74.6  | 75.0  | 74.6  | 74.8  | 75.2  | 75.2  | 75.7  |
| 10°   | 72.8  | 72.6  | 73.0  | 74.0  | 75.0  | 75.7  | 75.5  | 76.3  | 76.1  | 76.3  | 76.7  |
| 12.5° | 71.8  | 71.8  | 72.6  | 74.0  | 75.9  | 76.3  | 76.5  | 76.9  | 77.5  | 77.3  | 78.1  |
| 15°   | 72.0  | 72.2  | 73.0  | 74.8  | 77.1  | 77.5  | 77.8  | 77.8  | 78.9  | 78.5  | 79.7  |
| 17.5° | 73.6  | 73.8  | 74.6  | 76.3  | 79.1  | 79.1  | 79.3  | 79.7  | 81.2  | 80.4  | 82.0  |
| 20°   | 75.9  | 76.1  | 76.9  | 78.9  | 81.4  | 81.2  | 81.6  | 82.0  | 84.0  | 83.2  | 84.9  |
| 22.5° | 78.7  | 79.1  | 80.2  | 82.3  | 85.1  | 83.8  | 84.7  | 85.5  | 87.5  | 85.9  | 88.3  |
| 25°   | 82.6  | 83.2  | 84.2  | 86.6  | 89.6  | 88.1  | 89.0  | 89.6  | 91.8  | 89.6  | 92.0  |
| 27.5° | 88.1  | 88.5  | 89.4  | 92.0  | 94.5  | 93.5  | 93.9  | 94.3  | 96.9  | 94.5  | 97.1  |
| 30°   | 94.7  | 95.3  | 96.3  | 98.6  | 101.2 | 99.4  | 100.4 | 100.8 | 102.9 | 100.6 | 102.7 |
| 32.5° | 103.1 | 103.7 | 104.9 | 107.0 | 109.1 | 106.5 | 106.7 | 107.4 | 109.6 | 107.2 | 109.6 |
| 35°   | 112.9 | 113.3 | 114.9 | 117.4 | 119.0 | 114.9 | 115.1 | 115.1 | 117.8 | 114.7 | 117.2 |
| 37.5° | 123.3 | 123.7 | 125.4 | 128.0 | 129.7 | 125.2 | 125.2 | 125.4 | 128.0 | 124.3 | 126.6 |
| 40°   | 134.0 | 135.2 | 137.2 | 139.7 | 141.1 | 135.8 | 136.4 | 136.2 | 139.1 | 134.8 | 137.2 |
| 42.5° | 144.6 | 145.8 | 148.5 | 151.5 | 153.0 | 147.9 | 148.1 | 147.5 | 150.5 | 146.0 | 147.9 |
| 45°   | 153.9 | 154.8 | 158.1 | 162.4 | 164.8 | 159.5 | 159.5 | 159.5 | 162.4 | 156.9 | 159.3 |
| 47.5° | 161.4 | 162.0 | 165.7 | 171.9 | 175.7 | 170.4 | 170.8 | 170.0 | 174.5 | 167.7 | 170.8 |
| 50°   | 166.7 | 166.9 | 171.7 | 178.7 | 185.4 | 180.4 | 181.2 | 181.6 | 185.9 | 179.8 | 182.6 |
| 52.5° | 168.5 | 168.9 | 174.2 | 182.8 | 192.5 | 189.2 | 191.6 | 192.5 | 196.3 | 189.9 | 193.7 |
| 55°   | 162.4 | 163.6 | 171.7 | 184.3 | 197.4 | 196.3 | 199.2 | 200.8 | 205.7 | 200.4 | 204.5 |
| 57.5° | 142.3 | 143.6 | 155.0 | 175.7 | 198.5 | 200.2 | 204.1 | 206.8 | 213.9 | 210.7 | 215.2 |
| 60°   | 113.6 | 114.7 | 126.2 | 151.3 | 184.9 | 195.5 | 204.3 | 212.2 | 219.5 | 220.1 | 225.9 |
| 62.5° | 78.1  | 79.5  | 90.6  | 114.7 | 155.6 | 169.5 | 182.2 | 195.3 | 207.5 | 222.3 | 229.8 |
| 65°   | 38.2  | 39.0  | 48.5  | 71.6  | 114.3 | 132.1 | 146.8 | 165.2 | 176.7 | 197.8 | 210.0 |
| 67.5° | 21.0  | 21.0  | 22.5  | 29.8  | 61.1  | 78.7  | 94.5  | 117.6 | 129.2 | 155.4 | 171.0 |
| 70°   | 17.6  | 17.6  | 17.2  | 18.2  | 23.1  | 27.4  | 35.6  | 48.9  | 65.0  | 91.3  | 105.5 |
| 71°   | 16.7  | 16.5  | 16.3  | 16.7  | 18.6  | 19.5  | 22.9  | 30.0  | 40.7  | 63.0  | 76.9  |
| 72.5° | 15.7  | 15.2  | 14.5  | 14.8  | 15.9  | 15.9  | 16.5  | 17.6  | 21.7  | 29.6  | 39.7  |
| 75°   | 13.5  | 13.1  | 12.5  | 12.5  | 12.7  | 12.9  | 13.1  | 13.5  | 13.7  | 14.1  | 15.9  |
| 77.5° | 11.2  | 10.7  | 10.0  | 10.0  | 9.8   | 10.0  | 10.5  | 10.7  | 10.3  | 11.2  | 11.4  |
| 80°   | 8.6   | 8.0   | 7.7   | 7.7   | 7.5   | 7.3   | 7.3   | 7.3   | 7.5   | 8.0   | 8.2   |
| 82.5° | 5.3   | 4.9   | 5.1   | 4.9   | 4.7   | 4.7   | 4.7   | 4.7   | 4.9   | 4.9   | 5.3   |
| 85°   | 2.6   | 2.6   | 2.8   | 2.6   | 2.1   | 2.1   | 1.9   | 1.7   | 1.9   | 1.7   | 2.1   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 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   |



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**CANDELA DISTRIBUTION (continued):**

|       | 52.5° | 55°   | 57.5° | 60°   | 62.5° | 65°   | 67.5° | 70°   | 72.5° | 75°   | 77.5° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  |
| 2.5°  | 73.3  | 73.8  | 73.6  | 73.8  | 73.3  | 73.8  | 73.0  | 73.8  | 73.6  | 73.8  | 73.3  |
| 5°    | 74.0  | 74.6  | 74.0  | 74.8  | 74.0  | 74.8  | 74.0  | 74.8  | 74.2  | 74.8  | 74.0  |
| 7.5°  | 74.6  | 75.9  | 75.0  | 76.1  | 75.0  | 76.3  | 75.0  | 76.3  | 75.5  | 76.5  | 75.0  |
| 10°   | 75.9  | 77.3  | 76.1  | 77.3  | 76.1  | 77.5  | 76.1  | 77.8  | 76.5  | 78.3  | 76.3  |
| 12.5° | 76.9  | 78.7  | 77.3  | 79.1  | 77.1  | 79.5  | 77.5  | 80.2  | 78.1  | 80.6  | 78.1  |
| 15°   | 78.5  | 80.6  | 79.3  | 81.2  | 79.3  | 81.8  | 79.5  | 82.6  | 80.2  | 83.0  | 80.2  |
| 17.5° | 80.6  | 83.0  | 81.2  | 83.6  | 81.4  | 84.2  | 81.6  | 84.9  | 82.6  | 85.3  | 82.6  |
| 20°   | 83.6  | 85.5  | 83.8  | 86.3  | 84.0  | 86.6  | 84.5  | 87.1  | 85.1  | 87.7  | 85.1  |
| 22.5° | 87.1  | 88.7  | 87.5  | 89.0  | 86.8  | 89.0  | 86.8  | 89.0  | 87.5  | 89.6  | 87.5  |
| 25°   | 90.8  | 92.2  | 90.6  | 92.2  | 90.2  | 92.0  | 90.0  | 91.8  | 90.2  | 92.2  | 90.6  |
| 27.5° | 96.1  | 96.7  | 94.9  | 96.3  | 93.9  | 95.6  | 93.5  | 95.1  | 93.7  | 95.3  | 94.3  |
| 30°   | 101.6 | 102.2 | 100.6 | 101.4 | 98.8  | 99.8  | 97.5  | 99.0  | 97.7  | 99.0  | 98.4  |
| 32.5° | 107.8 | 108.6 | 106.7 | 107.2 | 105.1 | 105.3 | 103.3 | 103.9 | 102.9 | 103.3 | 103.1 |
| 35°   | 114.9 | 116.0 | 113.9 | 114.5 | 112.1 | 112.1 | 110.4 | 110.2 | 109.8 | 109.4 | 109.4 |
| 37.5° | 123.9 | 124.3 | 122.7 | 122.7 | 119.8 | 119.8 | 117.6 | 117.6 | 116.8 | 116.0 | 115.5 |
| 40°   | 133.7 | 134.0 | 131.1 | 130.9 | 128.2 | 128.2 | 125.8 | 125.2 | 123.7 | 122.7 | 121.9 |
| 42.5° | 144.2 | 144.0 | 139.9 | 140.3 | 136.4 | 136.6 | 133.5 | 132.9 | 131.3 | 130.1 | 128.8 |
| 45°   | 155.0 | 154.2 | 150.1 | 149.9 | 145.2 | 145.4 | 141.7 | 141.3 | 139.1 | 137.8 | 136.4 |
| 47.5° | 165.9 | 165.5 | 161.0 | 159.9 | 155.0 | 154.8 | 150.1 | 150.1 | 147.9 | 146.6 | 145.2 |
| 50°   | 177.3 | 177.1 | 171.9 | 171.2 | 166.1 | 165.2 | 159.7 | 159.7 | 157.1 | 156.7 | 154.6 |
| 52.5° | 189.7 | 188.8 | 183.2 | 183.0 | 178.1 | 177.5 | 171.4 | 171.0 | 167.2 | 166.9 | 164.6 |
| 55°   | 201.9 | 200.4 | 196.7 | 195.1 | 190.2 | 189.9 | 184.5 | 183.5 | 178.5 | 178.5 | 175.5 |
| 57.5° | 213.1 | 211.8 | 208.8 | 207.2 | 202.5 | 201.9 | 196.1 | 196.1 | 191.8 | 191.6 | 188.4 |
| 60°   | 224.6 | 225.0 | 221.9 | 221.2 | 216.7 | 216.5 | 210.7 | 210.7 | 206.4 | 206.2 | 202.5 |
| 62.5° | 234.5 | 238.8 | 237.5 | 237.9 | 234.1 | 233.4 | 227.6 | 227.2 | 222.3 | 221.7 | 218.6 |
| 65°   | 224.8 | 239.9 | 249.5 | 255.9 | 255.5 | 255.2 | 249.7 | 248.9 | 242.6 | 240.9 | 236.0 |
| 67.5° | 188.8 | 208.4 | 225.9 | 245.2 | 259.3 | 270.1 | 273.3 | 272.0 | 266.7 | 261.7 | 255.7 |
| 70°   | 126.4 | 148.9 | 171.2 | 195.3 | 219.5 | 243.1 | 267.3 | 277.8 | 288.9 | 285.1 | 284.0 |
| 71°   | 96.3  | 119.4 | 141.7 | 166.9 | 192.7 | 218.8 | 248.7 | 261.1 | 283.6 | 283.4 | 289.2 |
| 72.5° | 54.2  | 74.8  | 98.6  | 120.7 | 144.8 | 171.9 | 202.5 | 216.3 | 248.7 | 255.0 | 271.8 |
| 75°   | 17.4  | 23.8  | 31.5  | 49.7  | 64.8  | 89.4  | 112.1 | 125.8 | 147.2 | 157.9 | 181.4 |
| 77.5° | 11.6  | 12.9  | 13.3  | 15.4  | 17.4  | 24.7  | 33.5  | 40.9  | 45.0  | 47.2  | 49.5  |
| 80°   | 8.4   | 9.0   | 9.4   | 10.5  | 10.7  | 12.0  | 12.0  | 13.3  | 13.1  | 13.9  | 13.3  |
| 82.5° | 5.3   | 6.0   | 6.2   | 6.6   | 6.9   | 7.7   | 8.2   | 9.0   | 9.0   | 9.4   | 9.2   |
| 85°   | 2.6   | 3.0   | 3.0   | 3.5   | 3.5   | 4.1   | 4.1   | 4.7   | 4.7   | 5.3   | 5.1   |
| 87.5° | 0.2   | 0.2   | 0.2   | 0.4   | 0.4   | 0.4   | 0.6   | 0.8   | 0.8   | 0.8   | 0.8   |
| 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):**

|       | 80°   | 82.5° | 85°   | 87.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 73.8  | 73.8  | 73.8  | 73.8  | 73.8  |
| 2.5°  | 74.0  | 73.8  | 74.0  | 73.6  | 74.0  |
| 5°    | 75.0  | 74.2  | 75.2  | 74.2  | 75.2  |
| 7.5°  | 76.7  | 75.7  | 76.9  | 75.2  | 76.7  |
| 10°   | 78.3  | 76.7  | 78.5  | 76.7  | 78.3  |
| 12.5° | 80.8  | 78.5  | 81.2  | 78.5  | 81.2  |
| 15°   | 83.4  | 80.6  | 84.0  | 81.0  | 83.8  |
| 17.5° | 85.7  | 83.2  | 86.3  | 83.4  | 86.1  |
| 20°   | 87.9  | 85.5  | 88.3  | 85.3  | 88.3  |
| 22.5° | 90.0  | 88.5  | 90.6  | 88.5  | 90.6  |
| 25°   | 92.8  | 91.8  | 93.2  | 91.8  | 93.2  |
| 27.5° | 96.1  | 95.6  | 96.5  | 95.3  | 96.7  |
| 30°   | 99.6  | 99.8  | 100.1 | 99.8  | 100.4 |
| 32.5° | 104.1 | 105.3 | 104.9 | 104.9 | 104.9 |
| 35°   | 110.4 | 112.3 | 111.0 | 111.5 | 111.2 |
| 37.5° | 116.2 | 119.0 | 117.2 | 117.8 | 117.4 |
| 40°   | 122.7 | 124.5 | 124.1 | 124.1 | 123.7 |
| 42.5° | 129.7 | 132.1 | 131.3 | 131.7 | 131.1 |
| 45°   | 137.4 | 139.5 | 138.7 | 138.5 | 138.7 |
| 47.5° | 146.2 | 148.5 | 147.5 | 147.2 | 147.5 |
| 50°   | 155.4 | 158.1 | 157.3 | 156.9 | 157.3 |
| 52.5° | 165.5 | 168.9 | 168.5 | 168.1 | 168.7 |
| 55°   | 177.3 | 180.4 | 180.0 | 180.4 | 180.7 |
| 57.5° | 189.0 | 192.7 | 191.8 | 192.9 | 193.3 |
| 60°   | 203.9 | 206.0 | 206.2 | 206.4 | 206.6 |
| 62.5° | 218.8 | 219.7 | 220.3 | 221.0 | 221.2 |
| 65°   | 236.2 | 236.4 | 236.8 | 236.2 | 236.8 |
| 67.5° | 252.9 | 251.4 | 251.2 | 251.9 | 252.3 |
| 70°   | 278.9 | 278.9 | 276.7 | 279.7 | 277.1 |
| 71°   | 282.3 | 286.3 | 281.6 | 288.3 | 281.2 |
| 72.5° | 265.6 | 273.0 | 267.7 | 273.7 | 266.7 |
| 75°   | 184.7 | 202.1 | 201.9 | 210.5 | 203.7 |
| 77.5° | 51.2  | 48.0  | 51.2  | 44.2  | 42.2  |
| 80°   | 13.9  | 12.7  | 13.7  | 11.6  | 13.1  |
| 82.5° | 9.2   | 8.0   | 7.7   | 6.2   | 6.6   |
| 85°   | 5.3   | 4.1   | 4.1   | 3.2   | 3.5   |
| 87.5° | 0.8   | 0.2   | 0.8   | 0.4   | 0.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)