

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: SURE-LITES

Report Number: P26737

Luminaire Tested: **CU22 LED**

Test Date: 09/08/15

**Test Information**

Test Method: LM-79-08  
Report Number: P26737  
Test Lab: INNOVATION CENTER-P2  
Test Date: 09/08/15  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SURE-LITES  
Catalog Number: CU22 LED  
Description: SURE-LITES FIXED OPTIC EMERGENCY LIGHT  
Light Source: (2) 5000K LEDS  
NONE  
Ballast/Driver: [1] AGILIENT DC POWER SUPPLY  
IN0011

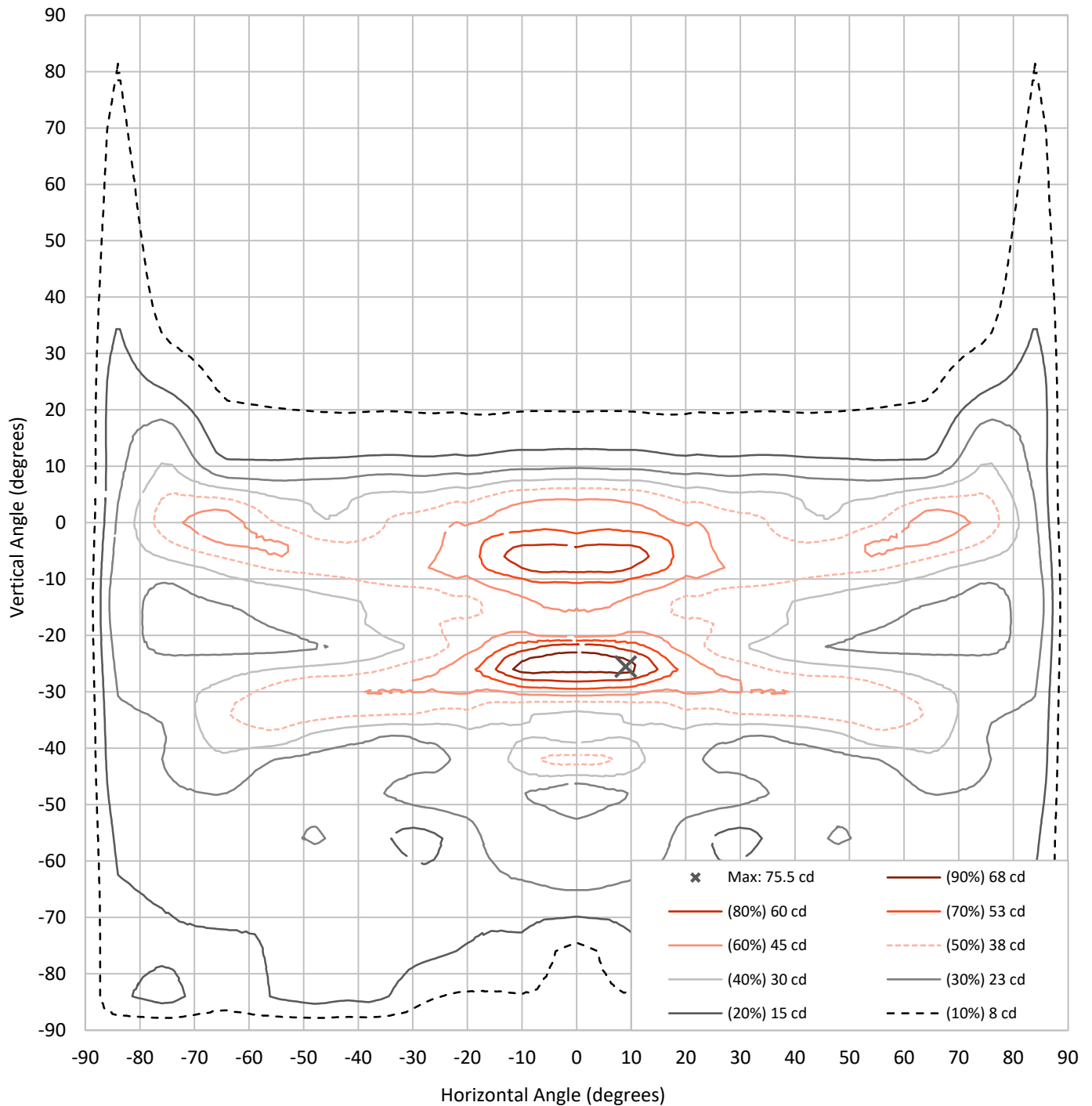
**Summary**

|                                   |   |                      |                   |
|-----------------------------------|---|----------------------|-------------------|
| Lumens per Lamp:                  | N/A   | NEMA Type:           | 7H x 6V           |
| Luminaire Lumens:                 | 107.5 lumens  | Max Intensity:       | 75.5 candela      |
| Efficiency:                       | N/A   | Max Intensity Angle: | 9°H x -25.5°V     |
| Efficacy:                         | 82.7 lumens/watt                                      |                      |                   |
| Luminous Opening:                 | Rectangular w/ Sides (W: 0.92' x L: 0.12' x H: 0.44') |                      |                   |
| Beam Angle (50%):                 | 67.4°H x 37.7°V                                       | Field Angle (10%):   | 176.9°H x 103.2°V |
| Beam Lumens:                      | 40.4 lumens   | Field Lumens:        | 100.5 lumens      |
| Beam Efficiency:                  | 37.6%   | Field Efficiency:    | 93.5%             |
| Input Watts (W):                  | 1.3   |                      |                   |
| Input Voltage (V):                | NR  |                      |                   |
| Input Current (Ain):              | 0.35370   |                      |                   |
| Voltage Rise (V):                 | NR  |                      |                   |
| Power Factor:                     | NR  |                      |                   |
| Total Harmonic Distortion (THDi): | NR  |                      |                   |
| Frequency (hertz):                | DC  |                      |                   |
| Stabilization Time:               | NR  |                      |                   |
| Operation Time:                   | NR  |                      |                   |
| Ambient Temperature (°C):         | 25.0  |                      |                   |
| Test Distance:                    | 25 FT   |                      |                   |



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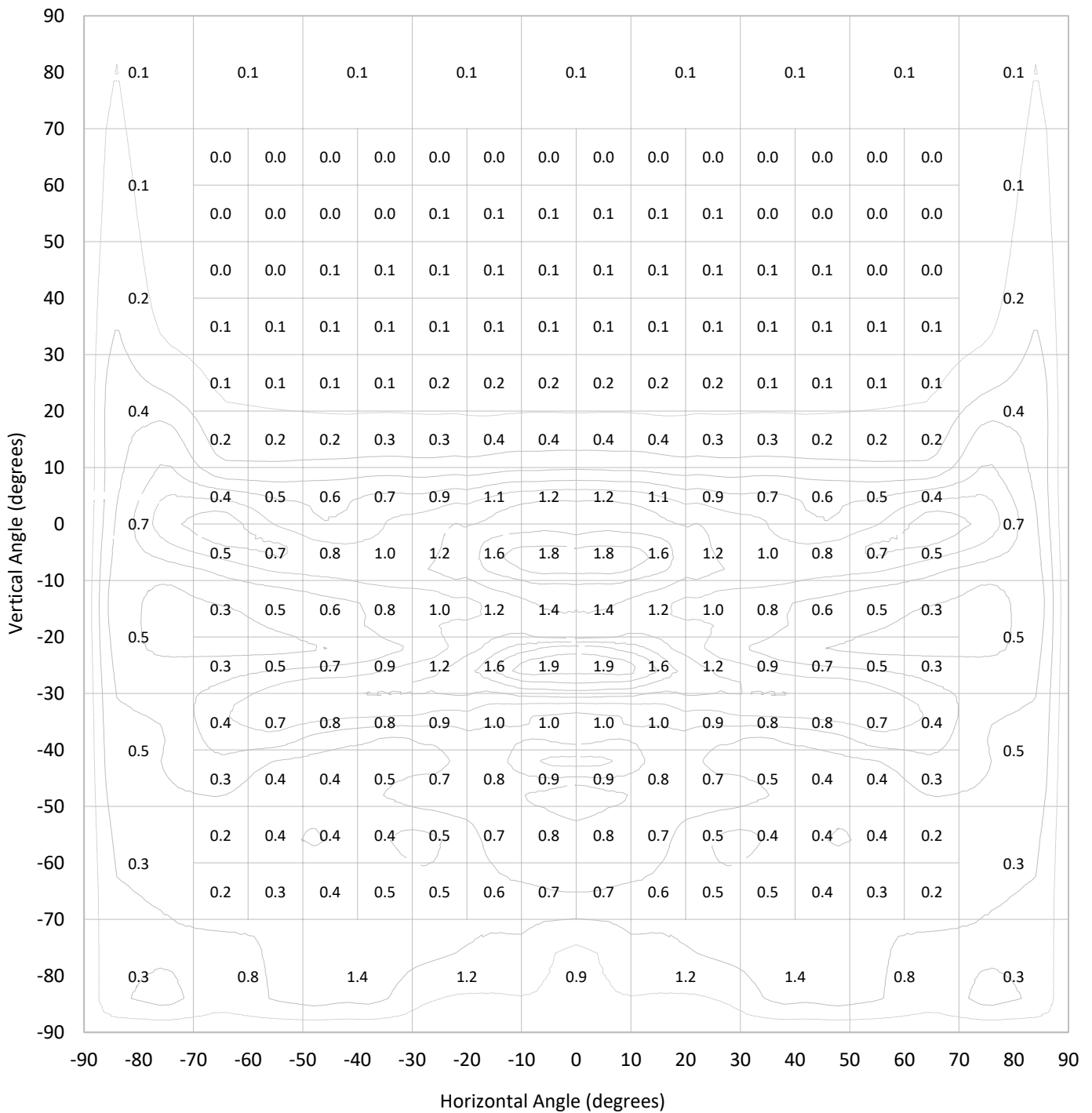
### Iso-Candela Plot





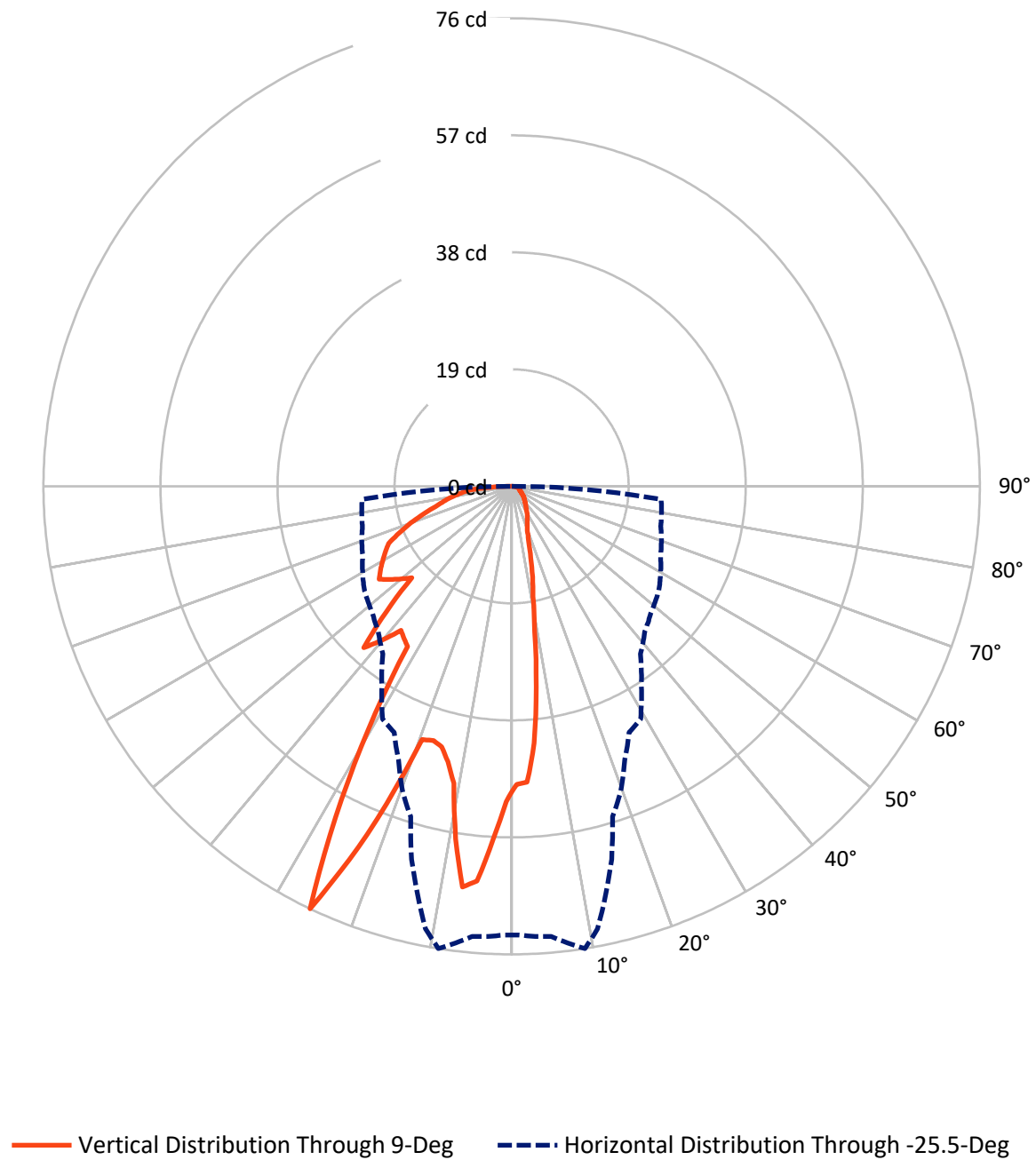
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### Lumen Table



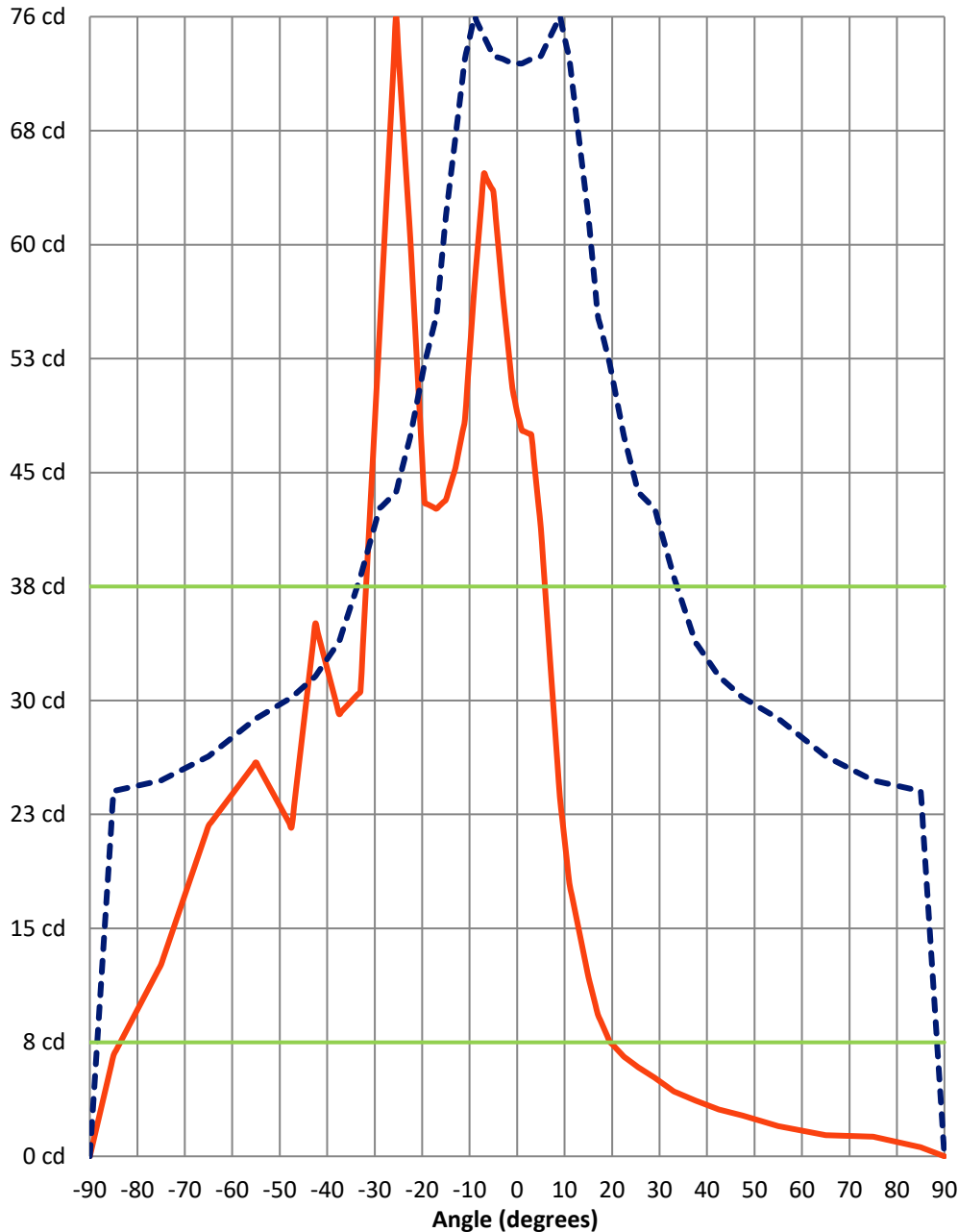
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### Luminous Intensity Polar Plot



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 67.4°  
 V Angle: 37.7°  
 Lumens: 40.4  
 Efficiency: 37.6%

**Field:**  
 H Angle: 176.9°  
 V Angle: 103.2°  
 Lumens: 100.5  
 Efficiency: 93.5%

**Spill:**  
 Lumens: 7  
 Efficiency: 6.5%

— Vertical Distribution through 9-Deg  
 - - - Horizontal Distribution through -25.5-Deg



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FIELD  
 BEAM

**CANDELA DISTRIBUTION:**

|        | 0°   | 1°   | 3°   | 5°   | 7°   | 9°   | 11°  | 13°  | 15°  | 17°  | 19.5° |
|--------|------|------|------|------|------|------|------|------|------|------|-------|
| 90°    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   |
| 85°    | 0.1  | 0.1  | 0.3  | 0.5  | 0.6  | 0.6  | 0.7  | 0.9  | 0.9  | 0.9  | 0.9   |
| 75°    | 1.3  | 1.5  | 1.3  | 1.2  | 1.3  | 1.3  | 1.2  | 1.2  | 1.3  | 1.3  | 1.2   |
| 65°    | 1.5  | 1.5  | 1.4  | 1.4  | 1.4  | 1.4  | 1.4  | 1.5  | 1.4  | 1.4  | 1.4   |
| 55°    | 2.1  | 2.1  | 2.1  | 2.1  | 2.1  | 2.0  | 2.0  | 2.0  | 2.0  | 1.9  | 2.0   |
| 47.5°  | 2.8  | 2.7  | 2.8  | 2.7  | 2.7  | 2.7  | 2.6  | 2.6  | 2.7  | 2.6  | 2.6   |
| 42.5°  | 3.2  | 3.2  | 3.3  | 3.2  | 3.2  | 3.1  | 3.1  | 3.1  | 3.0  | 3.1  | 3.1   |
| 37.5°  | 3.9  | 3.8  | 3.9  | 3.8  | 3.8  | 3.7  | 3.7  | 3.7  | 3.6  | 3.7  | 3.8   |
| 33°    | 4.4  | 4.4  | 4.4  | 4.4  | 4.3  | 4.3  | 4.3  | 4.2  | 4.3  | 4.2  | 4.4   |
| 29°    | 5.3  | 5.3  | 5.2  | 5.2  | 5.2  | 5.2  | 5.1  | 5.1  | 5.0  | 4.8  | 5.1   |
| 25.5°  | 5.9  | 5.9  | 5.9  | 5.9  | 5.8  | 5.9  | 5.8  | 5.6  | 5.6  | 5.4  | 5.5   |
| 22.5°  | 6.7  | 6.6  | 6.6  | 6.5  | 6.6  | 6.6  | 6.4  | 6.3  | 6.2  | 6.1  | 6.1   |
| 19.5°  | 7.5  | 7.5  | 7.6  | 7.6  | 7.6  | 7.6  | 7.5  | 7.4  | 7.2  | 7.2  | 7.2   |
| 17°    | 9.1  | 9.1  | 9.2  | 9.3  | 9.2  | 9.4  | 9.4  | 9.3  | 9.1  | 9.0  | 9.1   |
| 15°    | 11.7 | 11.9 | 11.9 | 11.9 | 11.8 | 11.9 | 11.9 | 11.8 | 11.4 | 11.2 | 11.2  |
| 13°    | 15.2 | 15.2 | 15.2 | 15.1 | 14.7 | 15.0 | 14.9 | 14.7 | 14.2 | 13.9 | 13.5  |
| 11°    | 18.8 | 18.6 | 18.6 | 18.4 | 18.2 | 18.1 | 18.1 | 17.7 | 17.1 | 16.7 | 16.0  |
| 9°     | 24.4 | 24.0 | 24.0 | 23.9 | 23.0 | 23.8 | 23.4 | 23.1 | 22.2 | 21.6 | 21.0  |
| 7°     | 33.7 | 33.8 | 33.9 | 33.8 | 32.4 | 32.6 | 32.7 | 31.9 | 30.3 | 28.8 | 27.4  |
| 5°     | 42.8 | 43.1 | 42.6 | 42.9 | 42.0 | 41.6 | 41.4 | 39.9 | 38.2 | 36.5 | 33.2  |
| 3°     | 48.0 | 48.7 | 48.8 | 48.9 | 48.4 | 47.8 | 47.3 | 46.2 | 44.1 | 42.5 | 39.7  |
| 1°     | 47.9 | 48.4 | 48.6 | 49.2 | 49.3 | 48.1 | 47.6 | 46.9 | 45.7 | 44.9 | 43.2  |
| 0°     | 49.1 | 49.7 | 50.1 | 50.7 | 50.5 | 49.3 | 49.0 | 48.0 | 46.9 | 46.2 | 44.5  |
| -1°    | 50.3 | 50.8 | 51.1 | 51.8 | 51.9 | 50.9 | 50.6 | 49.9 | 48.6 | 48.2 | 46.1  |
| -3°    | 55.7 | 56.4 | 56.7 | 57.5 | 56.9 | 57.0 | 57.2 | 56.8 | 55.0 | 53.2 | 48.6  |
| -5°    | 63.3 | 64.4 | 64.6 | 64.6 | 64.2 | 63.9 | 63.4 | 60.9 | 58.4 | 54.7 | 48.0  |
| -7°    | 67.7 | 67.7 | 67.5 | 67.6 | 67.9 | 65.1 | 63.3 | 60.5 | 57.9 | 55.4 | 49.0  |
| -9°    | 59.4 | 59.2 | 59.2 | 59.5 | 60.4 | 57.6 | 56.0 | 53.8 | 52.0 | 50.4 | 46.1  |
| -11°   | 51.7 | 51.0 | 50.5 | 50.0 | 50.6 | 48.8 | 47.7 | 46.7 | 46.1 | 45.0 | 42.2  |
| -13°   | 44.1 | 44.5 | 44.6 | 44.8 | 45.8 | 45.6 | 45.5 | 44.3 | 43.0 | 40.9 | 37.2  |
| -15°   | 46.9 | 47.3 | 47.3 | 46.7 | 45.8 | 43.5 | 41.6 | 39.7 | 37.8 | 36.1 | 33.7  |
| -17°   | 43.4 | 43.3 | 43.0 | 43.0 | 43.8 | 42.9 | 42.4 | 41.8 | 40.7 | 39.8 | 38.7  |
| -19.5° | 37.6 | 38.2 | 38.9 | 39.9 | 41.3 | 43.3 | 44.3 | 44.5 | 43.7 | 42.2 | 40.6  |
| -22.5° | 70.0 | 70.7 | 68.8 | 68.2 | 62.9 | 60.8 | 57.8 | 54.1 | 50.0 | 46.2 | 43.2  |
| -25.5° | 72.4 | 72.4 | 72.7 | 72.9 | 74.2 | 75.5 | 72.7 | 67.5 | 62.3 | 55.7 | 52.5  |
| -29°   | 56.8 | 56.8 | 56.3 | 54.9 | 54.2 | 54.4 | 51.9 | 49.1 | 48.2 | 46.5 | 48.8  |
| -33°   | 28.8 | 28.9 | 29.6 | 30.3 | 30.1 | 30.8 | 32.5 | 32.7 | 33.5 | 34.6 | 38.1  |
| -37.5° | 25.0 | 25.3 | 26.3 | 28.1 | 29.6 | 29.3 | 29.1 | 28.7 | 27.6 | 27.9 | 28.2  |
| -42.5° | 42.2 | 42.2 | 41.8 | 41.0 | 38.1 | 35.3 | 32.0 | 29.9 | 27.4 | 25.9 | 25.0  |
| -47.5° | 15.4 | 15.6 | 17.1 | 19.7 | 20.7 | 21.8 | 24.1 | 25.6 | 28.3 | 30.3 | 29.6  |
| -55°   | 26.2 | 26.6 | 27.1 | 27.3 | 26.8 | 26.1 | 25.2 | 26.7 | 26.8 | 23.9 | 19.4  |
| -65°   | 23.5 | 23.3 | 23.6 | 22.6 | 22.4 | 21.9 | 22.2 | 21.5 | 20.0 | 18.6 | 17.5  |
| -75°   | 6.2  | 6.6  | 7.2  | 8.2  | 9.4  | 12.7 | 13.2 | 12.7 | 13.4 | 14.1 | 15.0  |
| -85°   | 6.8  | 6.7  | 6.7  | 6.7  | 6.6  | 6.7  | 6.6  | 6.4  | 6.1  | 6.0  | 5.8   |
| -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):**

|        | 22.5° | 25.5° | 29°  | 33°  | 37.5° | 42.5° | 47.5° | 55°  | 65°  | 75°  | 85°  |
|--------|-------|-------|------|------|-------|-------|-------|------|------|------|------|
| 90°    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| 85°    | 0.8   | 0.8   | 0.8  | 0.8  | 0.8   | 0.9   | 0.9   | 1.0  | 1.2  | 1.9  | 7.8  |
| 75°    | 1.1   | 1.1   | 1.0  | 1.1  | 1.1   | 1.2   | 1.3   | 1.4  | 1.6  | 2.3  | 8.8  |
| 65°    | 1.3   | 1.4   | 1.4  | 1.5  | 1.6   | 1.6   | 1.6   | 1.7  | 1.9  | 2.7  | 10.0 |
| 55°    | 1.9   | 1.9   | 1.9  | 1.9  | 1.9   | 2.0   | 2.0   | 2.1  | 2.2  | 3.0  | 11.5 |
| 47.5°  | 2.5   | 2.5   | 2.5  | 2.5  | 2.5   | 2.4   | 2.5   | 2.5  | 2.6  | 3.4  | 13.1 |
| 42.5°  | 3.0   | 3.1   | 3.1  | 3.0  | 2.9   | 2.7   | 2.8   | 2.8  | 2.9  | 3.9  | 14.3 |
| 37.5°  | 3.7   | 3.7   | 3.7  | 3.6  | 3.4   | 3.3   | 3.2   | 3.2  | 3.4  | 4.9  | 15.7 |
| 33°    | 4.3   | 4.2   | 4.2  | 4.1  | 3.8   | 3.7   | 3.7   | 3.7  | 4.0  | 6.8  | 16.8 |
| 29°    | 4.9   | 4.7   | 4.9  | 4.7  | 4.5   | 4.3   | 4.3   | 4.3  | 4.9  | 9.7  | 18.0 |
| 25.5°  | 5.4   | 5.3   | 5.4  | 5.4  | 5.1   | 4.8   | 4.9   | 5.2  | 6.0  | 12.8 | 18.8 |
| 22.5°  | 6.2   | 6.1   | 6.0  | 6.2  | 6.0   | 5.8   | 6.0   | 6.4  | 7.2  | 16.2 | 19.5 |
| 19.5°  | 7.5   | 7.3   | 7.4  | 7.6  | 7.6   | 7.4   | 7.6   | 8.0  | 8.7  | 21.0 | 19.9 |
| 17°    | 9.7   | 9.5   | 9.5  | 9.8  | 9.7   | 9.4   | 9.6   | 9.7  | 9.7  | 25.0 | 20.1 |
| 15°    | 12.1  | 11.8  | 11.6 | 11.9 | 11.4  | 11.1  | 10.9  | 10.6 | 11.1 | 27.3 | 20.0 |
| 13°    | 14.1  | 13.6  | 13.6 | 13.7 | 13.4  | 12.8  | 12.6  | 12.4 | 13.0 | 29.1 | 19.8 |
| 11°    | 16.5  | 15.8  | 15.7 | 16.6 | 16.7  | 15.9  | 15.7  | 15.0 | 15.0 | 30.8 | 19.7 |
| 9°     | 21.8  | 20.8  | 20.4 | 21.5 | 21.3  | 19.9  | 19.6  | 18.4 | 19.1 | 33.0 | 19.8 |
| 7°     | 28.4  | 27.0  | 26.1 | 27.0 | 26.5  | 24.9  | 24.4  | 23.7 | 26.5 | 35.4 | 20.0 |
| 5°     | 34.3  | 32.1  | 30.8 | 31.5 | 31.4  | 28.8  | 28.7  | 29.7 | 35.1 | 38.5 | 20.2 |
| 3°     | 40.2  | 37.4  | 35.6 | 35.3 | 33.8  | 29.9  | 30.2  | 32.4 | 43.9 | 41.6 | 20.8 |
| 1°     | 44.3  | 41.3  | 39.3 | 38.5 | 33.8  | 30.1  | 29.7  | 35.1 | 49.9 | 43.1 | 21.4 |
| 0°     | 45.7  | 42.9  | 41.3 | 40.2 | 34.6  | 30.8  | 30.1  | 37.1 | 50.9 | 43.1 | 21.7 |
| -1°    | 46.8  | 43.4  | 42.0 | 40.2 | 35.7  | 32.0  | 32.1  | 39.9 | 50.7 | 41.6 | 22.1 |
| -3°    | 47.3  | 44.4  | 42.2 | 41.1 | 38.4  | 36.3  | 38.2  | 46.2 | 47.9 | 38.3 | 23.2 |
| -5°    | 47.8  | 44.2  | 42.0 | 42.7 | 41.4  | 40.8  | 42.9  | 48.1 | 42.0 | 33.5 | 24.1 |
| -7°    | 48.9  | 46.4  | 45.2 | 44.9 | 43.5  | 42.6  | 43.0  | 43.2 | 34.4 | 28.8 | 24.9 |
| -9°    | 47.9  | 45.9  | 43.4 | 42.7 | 41.6  | 39.4  | 38.4  | 35.7 | 29.6 | 24.7 | 25.8 |
| -11°   | 42.5  | 39.2  | 38.0 | 38.0 | 37.1  | 35.0  | 33.5  | 29.6 | 28.0 | 21.5 | 26.7 |
| -13°   | 37.5  | 35.5  | 35.0 | 34.5 | 32.4  | 29.9  | 28.2  | 26.7 | 25.3 | 19.5 | 27.1 |
| -15°   | 34.2  | 33.4  | 33.4 | 32.4 | 29.7  | 28.1  | 27.8  | 27.0 | 21.2 | 18.9 | 27.1 |
| -17°   | 39.0  | 37.8  | 36.1 | 34.5 | 31.5  | 29.4  | 29.6  | 25.7 | 18.5 | 19.0 | 27.0 |
| -19.5° | 39.4  | 37.1  | 35.6 | 32.9 | 29.6  | 27.1  | 25.0  | 21.0 | 17.7 | 19.6 | 26.3 |
| -22.5° | 39.3  | 34.2  | 30.3 | 27.8 | 25.2  | 23.2  | 21.3  | 20.3 | 20.8 | 21.3 | 25.4 |
| -25.5° | 47.7  | 44.0  | 42.9 | 38.4 | 34.1  | 31.8  | 30.4  | 29.0 | 26.5 | 24.9 | 24.2 |
| -29°   | 49.2  | 47.4  | 46.8 | 46.5 | 46.8  | 44.3  | 45.2  | 39.6 | 31.2 | 27.0 | 22.8 |
| -33°   | 37.2  | 38.0  | 41.4 | 42.2 | 42.6  | 43.0  | 45.1  | 45.6 | 37.2 | 23.6 | 21.7 |
| -37.5° | 26.1  | 24.6  | 23.8 | 21.8 | 23.7  | 25.5  | 28.2  | 36.9 | 34.8 | 22.2 | 20.7 |
| -42.5° | 23.4  | 19.0  | 19.5 | 18.1 | 18.9  | 18.3  | 19.1  | 20.7 | 28.5 | 23.0 | 19.8 |
| -47.5° | 30.4  | 29.2  | 28.4 | 24.8 | 21.5  | 17.7  | 15.9  | 18.1 | 23.6 | 21.9 | 18.5 |
| -55°   | 16.4  | 14.2  | 13.0 | 14.0 | 17.4  | 21.2  | 23.9  | 22.2 | 15.2 | 19.3 | 16.4 |
| -65°   | 16.7  | 16.3  | 16.6 | 18.0 | 19.9  | 18.9  | 18.4  | 14.6 | 21.0 | 15.9 | 14.4 |
| -75°   | 16.3  | 17.4  | 18.3 | 18.8 | 20.3  | 19.5  | 18.3  | 16.0 | 12.7 | 13.8 | 13.9 |
| -85°   | 5.8   | 6.7   | 8.5  | 13.7 | 16.7  | 15.9  | 17.5  | 15.7 | 10.1 | 17.8 | 13.8 |
| -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):**

|        | 90° |
|--------|-----|
| 90°    | 0.0 |
| 85°    | 0.0 |
| 75°    | 0.0 |
| 65°    | 0.0 |
| 55°    | 0.0 |
| 47.5°  | 0.0 |
| 42.5°  | 0.0 |
| 37.5°  | 0.0 |
| 33°    | 0.0 |
| 29°    | 0.0 |
| 25.5°  | 0.0 |
| 22.5°  | 0.0 |
| 19.5°  | 0.0 |
| 17°    | 0.0 |
| 15°    | 0.0 |
| 13°    | 0.0 |
| 11°    | 0.0 |
| 9°     | 0.0 |
| 7°     | 0.0 |
| 5°     | 0.0 |
| 3°     | 0.0 |
| 1°     | 0.0 |
| 0°     | 0.0 |
| -1°    | 0.0 |
| -3°    | 0.0 |
| -5°    | 0.0 |
| -7°    | 0.0 |
| -9°    | 0.0 |
| -11°   | 0.0 |
| -13°   | 0.0 |
| -15°   | 0.0 |
| -17°   | 0.0 |
| -19.5° | 0.0 |
| -22.5° | 0.0 |
| -25.5° | 0.0 |
| -29°   | 0.0 |
| -33°   | 0.0 |
| -37.5° | 0.0 |
| -42.5° | 0.0 |
| -47.5° | 0.0 |
| -55°   | 0.0 |
| -65°   | 0.0 |
| -75°   | 0.0 |
| -85°   | 0.0 |
| -90°   | 0.0 |

(END OF REPORT)