

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: INVUE

Report Number: P400814

Luminaire Tested: **ENT-SA1-750-U-T3-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400814  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-750-U-T3-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 786 lumens  
Efficiency: N/A  
Efficacy: 60.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G0

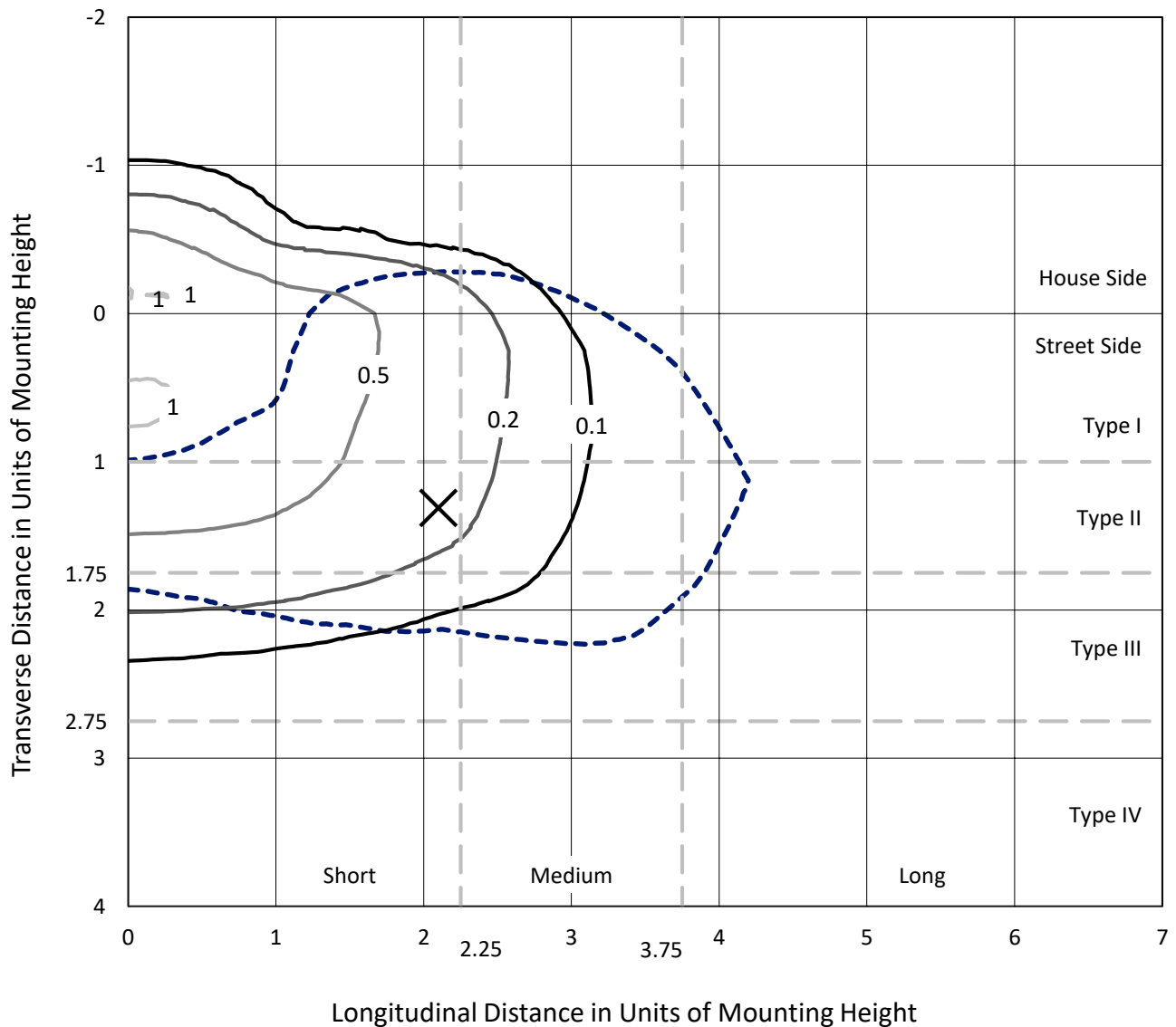
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

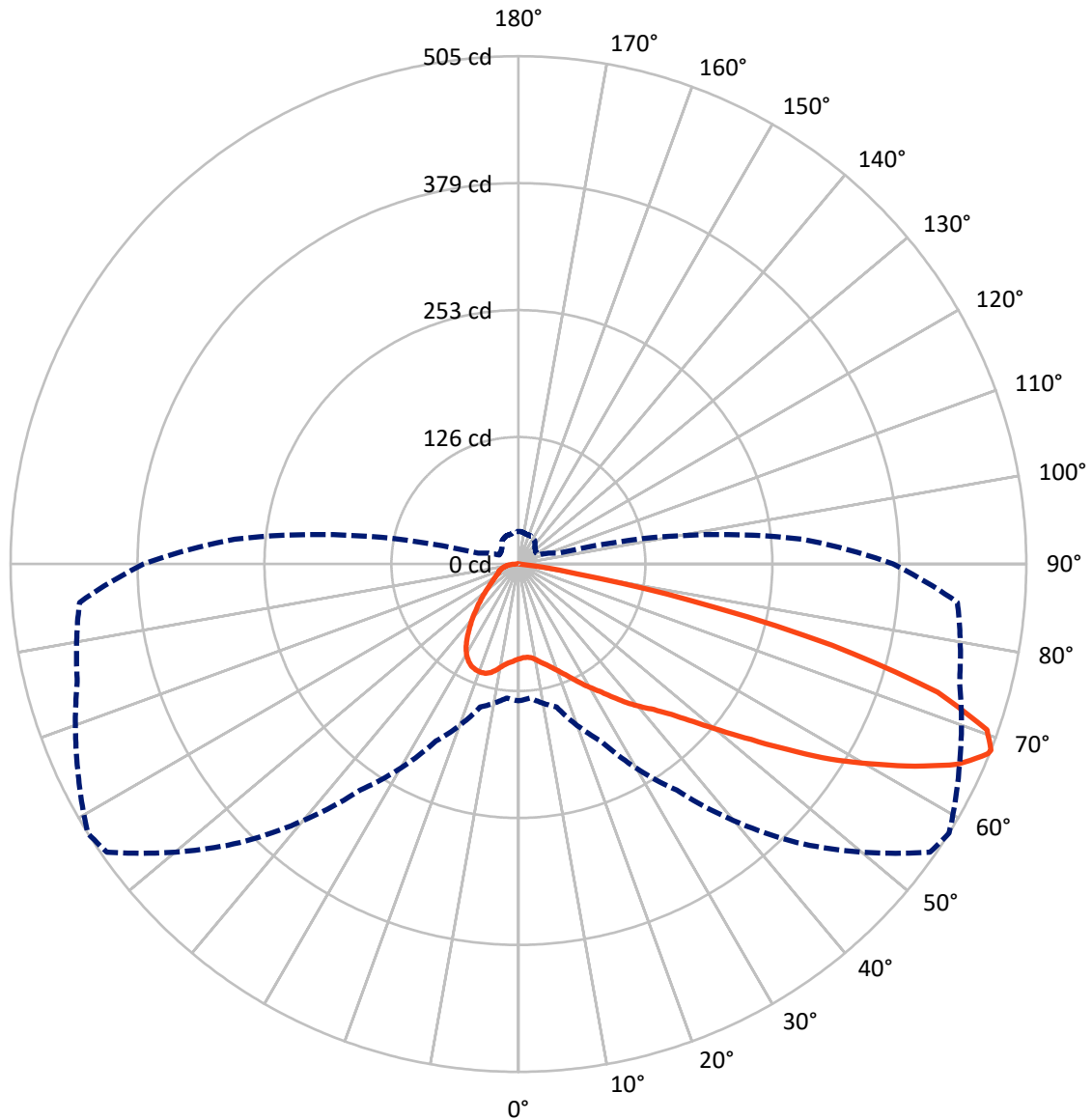
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| <b>House Side</b>  | Lumens    | 184.0    | 0.0    | 184.0 |
|                    | % Fixture | 23.4     | 0.0    | 23.4  |
| <b>Street Side</b> | Lumens    | 602.0    | 0.0    | 602.0 |
|                    | % Fixture | 76.6     | 0.0    | 76.6  |
| <b>Total</b>       | Lumens    | 786.0    | 0.0    | 786.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0 |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 9.3    | 1.2       |
| 10°-20°   | 30.4   | 3.9       |
| 20°-30°   | 54.7   | 7.0       |
| 30°-40°   | 80.3   | 10.2      |
| 40°-50°   | 117.8  | 15.0      |
| 50°-60°   | 176.1  | 22.4      |
| 60°-70°   | 205.9  | 26.2      |
| 70°-80°   | 101.5  | 12.9      |
| 80°-90°   | 9.9    | 1.3       |
| 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°    | 786.0  | 100.0     |
| 0°-180°   | 786.0  | 100.0     |



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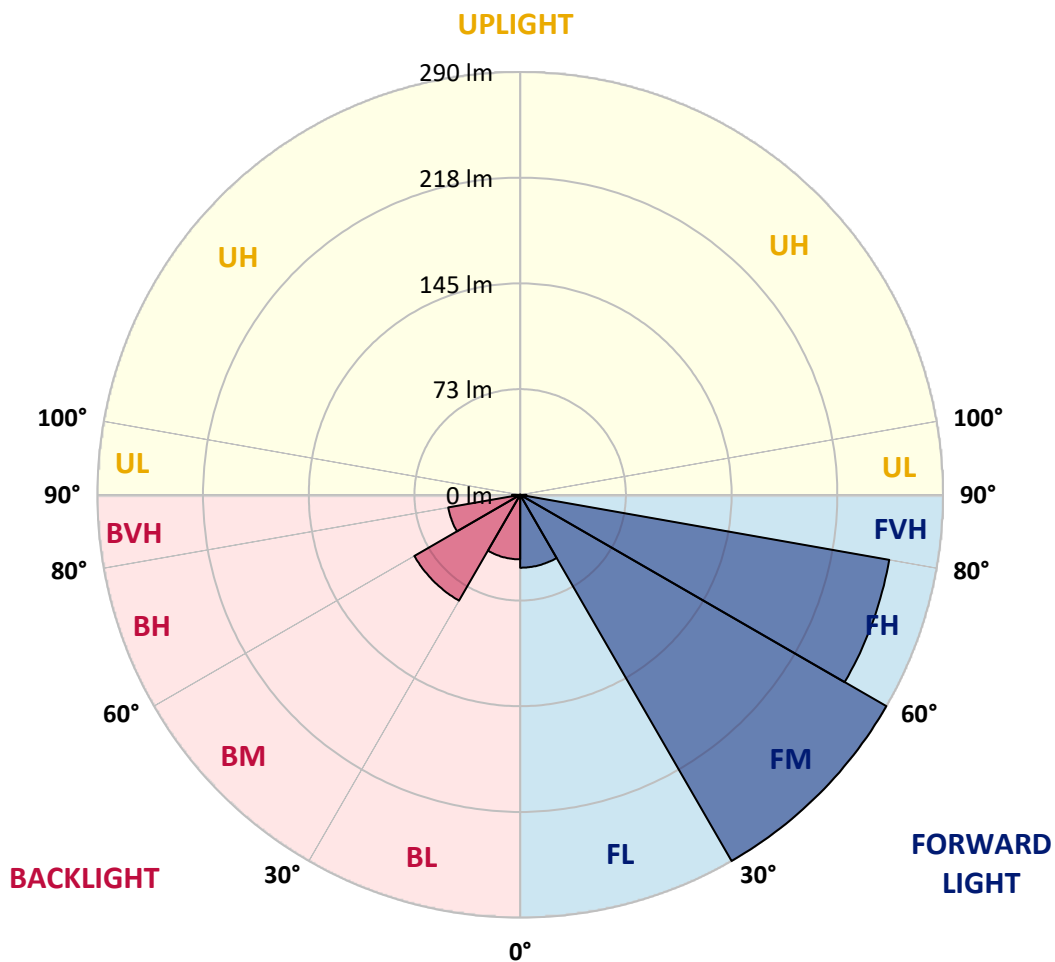
CATALOG NUMBER: ENT-SA1-750-U-T3-XXB

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|----------------|--------|-----------|-------------------------|------|--------|
|                |        |           | B                       | U    | G      |
| FL (0°-30°)    | 50.1   | 6.4       |                         |      |        |
| FM (30°-60°)   | 290.3  | 36.9      |                         |      |        |
| FH (60°-80°)   | 257.3  | 32.7      |                         |      | G0/660 |
| FVH (80°-90°)  | 4.3    | 0.5       |                         |      | G0/10  |
| BL (0°-30°)    | 44.3   | 5.6       | B0/110                  |      |        |
| BM (30°-60°)   | 83.9   | 10.7      | B0/220                  |      |        |
| BH (60°-80°)   | 50.1   | 6.4       | B0/110                  |      | G0/110 |
| BVH (80°-90°)  | 5.6    | 0.7       |                         |      | 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 III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 58°   | 65°   | 75°   | 85°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  |
| 2.5°  | 92.1  | 92.1  | 92.4  | 92.5  | 92.7  | 93.0  | 93.2  | 93.3  | 93.6  | 94.1  | 94.3  |
| 5°    | 91.3  | 91.4  | 91.6  | 91.8  | 92.1  | 92.5  | 92.9  | 93.1  | 93.6  | 94.5  | 95.0  |
| 7.5°  | 93.1  | 93.4  | 93.5  | 93.6  | 93.7  | 94.1  | 94.1  | 94.2  | 94.7  | 95.6  | 96.4  |
| 10°   | 95.9  | 96.1  | 96.5  | 96.8  | 97.1  | 97.4  | 96.7  | 96.8  | 97.0  | 97.9  | 99.0  |
| 12.5° | 99.5  | 99.5  | 99.7  | 100.1 | 100.4 | 101.1 | 100.4 | 100.4 | 100.4 | 101.2 | 102.5 |
| 15°   | 103.6 | 103.4 | 103.4 | 103.8 | 103.9 | 104.4 | 104.0 | 104.0 | 104.5 | 105.3 | 106.6 |
| 17.5° | 108.2 | 108.5 | 108.2 | 108.0 | 107.7 | 107.9 | 108.1 | 108.3 | 109.2 | 110.4 | 111.2 |
| 20°   | 114.9 | 115.5 | 115.2 | 114.4 | 112.9 | 112.3 | 113.0 | 113.5 | 115.2 | 116.7 | 116.8 |
| 22.5° | 125.6 | 125.2 | 124.9 | 123.4 | 120.5 | 118.8 | 118.9 | 119.5 | 122.3 | 124.5 | 123.4 |
| 25°   | 135.4 | 135.8 | 135.8 | 133.6 | 129.8 | 126.2 | 126.5 | 126.9 | 129.6 | 131.6 | 128.6 |
| 27.5° | 147.4 | 147.2 | 147.1 | 144.1 | 139.6 | 136.1 | 134.2 | 135.1 | 137.1 | 137.9 | 132.1 |
| 30°   | 159.8 | 160.7 | 159.8 | 155.6 | 151.3 | 146.9 | 143.1 | 142.9 | 143.9 | 143.8 | 136.3 |
| 32.5° | 174.7 | 174.0 | 173.6 | 168.8 | 163.4 | 157.5 | 152.8 | 152.0 | 151.5 | 150.7 | 141.3 |
| 35°   | 186.3 | 187.2 | 187.2 | 183.1 | 176.7 | 170.9 | 163.5 | 162.9 | 161.6 | 159.0 | 147.7 |
| 37.5° | 199.9 | 199.6 | 200.4 | 195.6 | 189.2 | 183.6 | 176.8 | 174.9 | 172.0 | 168.3 | 155.4 |
| 40°   | 213.1 | 213.7 | 215.4 | 209.6 | 203.8 | 199.4 | 189.8 | 186.4 | 181.9 | 178.5 | 166.6 |
| 42.5° | 231.3 | 232.0 | 232.7 | 227.8 | 220.9 | 217.0 | 202.1 | 197.8 | 195.3 | 194.6 | 181.4 |
| 45°   | 253.2 | 254.5 | 255.1 | 250.7 | 246.7 | 237.3 | 217.5 | 213.6 | 210.8 | 213.7 | 201.6 |
| 47.5° | 274.3 | 273.6 | 276.1 | 276.0 | 276.5 | 265.2 | 239.8 | 233.9 | 231.3 | 238.5 | 224.8 |
| 50°   | 286.1 | 287.1 | 292.6 | 298.2 | 306.0 | 297.9 | 265.6 | 259.7 | 256.6 | 265.6 | 252.0 |
| 52.5° | 292.3 | 293.6 | 300.9 | 316.6 | 333.2 | 329.4 | 296.7 | 290.1 | 287.4 | 296.2 | 281.2 |
| 55°   | 292.8 | 293.6 | 303.5 | 327.8 | 354.0 | 355.2 | 332.1 | 325.9 | 322.2 | 327.9 | 313.0 |
| 57.5° | 283.7 | 281.4 | 298.4 | 329.5 | 367.2 | 382.1 | 371.1 | 366.6 | 356.4 | 362.5 | 352.5 |
| 60°   | 267.5 | 269.8 | 286.5 | 322.7 | 372.8 | 403.0 | 410.1 | 403.3 | 391.5 | 394.0 | 395.1 |
| 62.5° | 242.9 | 245.8 | 263.2 | 306.9 | 368.3 | 420.8 | 446.3 | 442.9 | 426.9 | 425.6 | 427.6 |
| 65°   | 207.9 | 206.1 | 225.4 | 272.3 | 347.0 | 426.7 | 481.7 | 480.3 | 461.3 | 445.8 | 446.6 |
| 67.5° | 149.9 | 148.3 | 161.8 | 210.2 | 289.4 | 404.7 | 500.6 | 503.8 | 482.0 | 454.7 | 442.9 |
| 68°   | 136.1 | 133.8 | 147.3 | 194.3 | 274.6 | 391.9 | 499.6 | 505.1 | 483.6 | 454.2 | 438.2 |
| 70°   | 78.4  | 74.6  | 87.7  | 126.8 | 202.2 | 329.9 | 479.4 | 494.5 | 480.0 | 443.5 | 408.1 |
| 72.5° | 24.6  | 24.6  | 33.9  | 51.3  | 99.2  | 208.8 | 410.1 | 435.9 | 439.0 | 403.1 | 339.1 |
| 75°   | 15.4  | 15.4  | 17.7  | 24.3  | 39.5  | 88.6  | 282.9 | 322.2 | 348.8 | 339.4 | 247.3 |
| 77.5° | 10.4  | 10.2  | 11.7  | 15.0  | 22.1  | 28.4  | 142.0 | 174.5 | 213.4 | 231.7 | 144.7 |
| 80°   | 5.7   | 5.8   | 7.2   | 9.0   | 12.5  | 13.2  | 41.7  | 58.9  | 93.9  | 110.1 | 54.9  |
| 82.5° | 3.3   | 3.2   | 3.5   | 4.0   | 5.5   | 5.7   | 12.0  | 14.7  | 24.6  | 22.8  | 14.7  |
| 85°   | 0.0   | 0.1   | 0.1   | 0.1   | 0.2   | 0.5   | 1.5   | 2.3   | 3.7   | 5.2   | 3.6   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.1   | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   |
| 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°   | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  | 94.4  |
| 2.5°  | 94.5  | 94.8  | 95.4  | 95.8  | 96.0  | 95.8  | 96.6  | 96.5  | 96.7  | 96.7  | 96.9  |
| 5°    | 95.5  | 95.9  | 96.9  | 97.5  | 98.0  | 98.2  | 99.1  | 99.3  | 99.8  | 100.0 | 99.9  |
| 7.5°  | 96.9  | 97.5  | 98.7  | 99.7  | 100.4 | 101.0 | 102.4 | 103.1 | 103.7 | 103.9 | 104.2 |
| 10°   | 99.5  | 100.3 | 101.6 | 102.8 | 103.9 | 104.7 | 105.9 | 106.8 | 107.4 | 107.7 | 107.9 |
| 12.5° | 103.1 | 103.9 | 105.6 | 107.2 | 108.4 | 108.9 | 108.8 | 108.5 | 108.5 | 108.4 | 108.5 |
| 15°   | 107.1 | 108.0 | 110.1 | 111.6 | 111.7 | 110.3 | 108.3 | 107.3 | 107.1 | 107.1 | 107.2 |
| 17.5° | 111.8 | 112.9 | 114.3 | 115.1 | 113.0 | 109.5 | 107.2 | 106.2 | 106.0 | 105.9 | 105.7 |
| 20°   | 117.2 | 117.9 | 118.3 | 117.2 | 112.6 | 108.5 | 105.9 | 104.5 | 103.4 | 103.3 | 102.8 |
| 22.5° | 122.9 | 122.7 | 122.2 | 118.2 | 111.4 | 106.2 | 102.6 | 100.0 | 98.6  | 98.4  | 98.0  |
| 25°   | 127.1 | 126.2 | 124.6 | 118.4 | 109.2 | 102.5 | 97.4  | 93.2  | 91.3  | 90.4  | 90.7  |
| 27.5° | 129.8 | 128.0 | 125.1 | 117.3 | 105.4 | 96.8  | 89.6  | 84.1  | 81.3  | 80.9  | 81.2  |
| 30°   | 133.1 | 130.2 | 125.6 | 114.6 | 99.9  | 88.8  | 79.4  | 73.9  | 72.3  | 71.6  | 71.8  |
| 32.5° | 137.1 | 133.2 | 127.0 | 110.4 | 93.0  | 79.5  | 69.3  | 65.4  | 63.7  | 62.2  | 62.7  |
| 35°   | 142.2 | 137.4 | 129.3 | 104.5 | 84.2  | 69.6  | 62.0  | 58.5  | 55.3  | 53.8  | 53.9  |
| 37.5° | 148.3 | 142.8 | 131.3 | 97.6  | 74.6  | 62.1  | 55.8  | 51.6  | 47.6  | 44.7  | 44.1  |
| 40°   | 157.9 | 153.4 | 132.9 | 89.9  | 65.5  | 56.0  | 49.6  | 44.9  | 41.2  | 38.2  | 37.9  |
| 42.5° | 174.1 | 166.3 | 133.0 | 80.7  | 57.7  | 50.7  | 44.6  | 39.4  | 35.2  | 32.7  | 32.6  |
| 45°   | 193.1 | 181.0 | 130.7 | 70.8  | 50.9  | 45.4  | 40.1  | 34.2  | 31.8  | 30.2  | 30.0  |
| 47.5° | 215.6 | 197.9 | 125.7 | 61.6  | 45.1  | 40.3  | 35.5  | 31.9  | 30.2  | 29.0  | 29.0  |
| 50°   | 241.2 | 217.8 | 120.6 | 53.7  | 39.5  | 36.1  | 32.8  | 31.0  | 29.6  | 28.5  | 28.4  |
| 52.5° | 270.2 | 241.2 | 119.0 | 45.7  | 34.9  | 32.3  | 31.9  | 30.2  | 29.1  | 28.3  | 28.1  |
| 55°   | 304.8 | 267.6 | 120.5 | 39.4  | 31.3  | 30.7  | 31.4  | 30.0  | 29.2  | 28.0  | 27.7  |
| 57.5° | 344.7 | 293.3 | 118.9 | 34.1  | 28.8  | 29.3  | 30.7  | 30.0  | 29.3  | 27.8  | 27.3  |
| 60°   | 382.4 | 316.2 | 107.7 | 29.7  | 26.3  | 27.5  | 29.9  | 29.0  | 28.0  | 27.7  | 27.4  |
| 62.5° | 402.6 | 323.7 | 85.8  | 26.3  | 24.5  | 25.8  | 28.4  | 27.3  | 26.7  | 27.4  | 27.5  |
| 65°   | 402.8 | 315.2 | 63.1  | 23.8  | 22.9  | 24.3  | 27.0  | 26.7  | 27.1  | 28.9  | 29.2  |
| 67.5° | 380.4 | 289.5 | 44.6  | 21.5  | 21.4  | 23.0  | 27.7  | 29.9  | 30.2  | 31.9  | 31.9  |
| 68°   | 372.7 | 283.2 | 41.4  | 21.2  | 21.1  | 23.0  | 28.2  | 30.4  | 30.6  | 32.3  | 32.2  |
| 70°   | 330.6 | 239.4 | 30.0  | 19.9  | 20.5  | 24.7  | 31.2  | 31.9  | 30.6  | 32.5  | 32.4  |
| 72.5° | 258.4 | 177.0 | 22.4  | 18.4  | 19.5  | 24.4  | 31.4  | 30.6  | 28.6  | 29.1  | 28.5  |
| 75°   | 174.6 | 112.8 | 18.4  | 16.9  | 17.3  | 20.6  | 28.5  | 28.9  | 26.6  | 26.1  | 25.5  |
| 77.5° | 91.4  | 52.9  | 14.9  | 15.0  | 15.5  | 17.9  | 25.5  | 26.2  | 24.1  | 22.8  | 22.6  |
| 80°   | 33.7  | 21.0  | 12.2  | 13.3  | 13.5  | 15.7  | 21.8  | 23.0  | 21.1  | 20.1  | 19.9  |
| 82.5° | 12.3  | 10.4  | 10.1  | 11.6  | 11.4  | 13.4  | 19.1  | 20.0  | 17.9  | 16.9  | 16.4  |
| 85°   | 3.4   | 3.8   | 6.4   | 9.1   | 8.9   | 10.4  | 15.4  | 16.1  | 14.4  | 11.9  | 11.5  |
| 87.5° | 0.2   | 0.8   | 2.5   | 5.4   | 5.6   | 6.5   | 11.1  | 12.2  | 10.6  | 8.8   | 8.7   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)