

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1314684

Luminaire Tested: P3SQAS20R309735D010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1314684  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS20R309735D010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 97CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

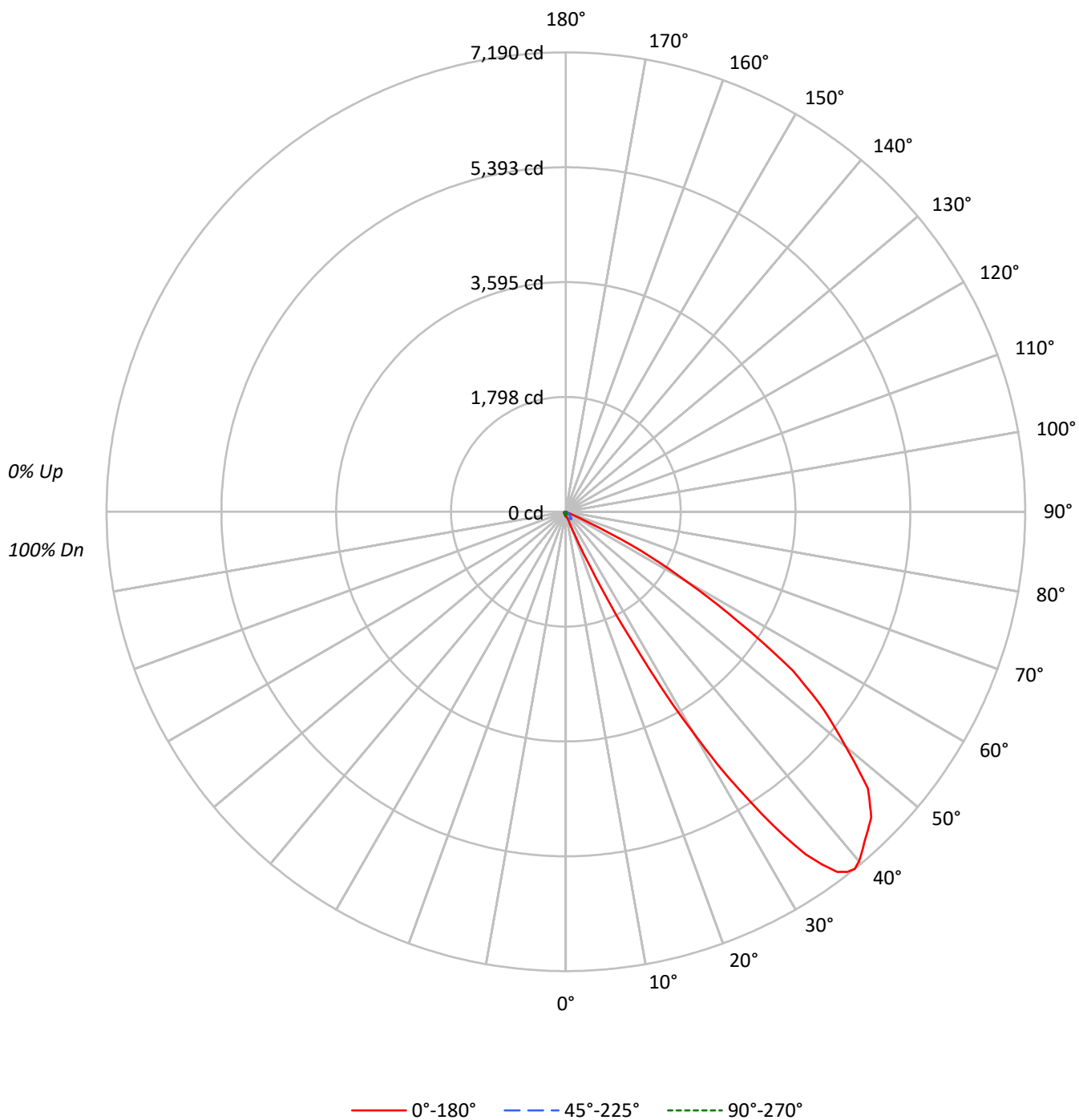
Lumens per Lamp: N/A  
Luminaire Lumens: 1869.0 lumens  
Efficiency: N/A  
Efficacy: 64.9 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.8  
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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### Luminous Intensity Polar Plot



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### COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |  |  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  |     |  |  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |  |  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |  |  |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 87  |  |  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  |  |  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  |  |  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  |  |  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  | 42  |  |  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  | 35  |  |  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  | 29  |  |  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  | 24  |  |  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  | 20  |  |  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  | 17  |  |  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°      | 45°   | 90°   | 135°  | 180°  |
|-----|---------|-------|-------|-------|-------|
| 0°  | 12469   | 12469 | 12469 | 12469 | 12469 |
| 5°  | 13329   | 13070 | 12240 | 11151 | 10891 |
| 10° | 14585   | 12941 | 10738 | 9636  | 9356  |
| 15° | 21342   | 12909 | 8986  | 8148  | 8416  |
| 20° | 53663   | 14131 | 6928  | 6928  | 7789  |
| 25° | 249201  | 17653 | 5378  | 6290  | 7183  |
| 30° | 793354  | 24421 | 4077  | 5946  | 7199  |
| 35° | 1376642 | 29792 | 3301  | 5635  | 7274  |
| 40° | 1605512 | 29721 | 2473  | 5665  | 7442  |
| 45° | 1646536 | 21092 | 2679  | 6138  | 8062  |
| 50° | 1531225 | 11816 | 2117  | 6323  | 9270  |
| 55° | 1301391 | 6155  | 2372  | 7086  | 10389 |
| 60° | 751614  | 1619  | 2721  | 7578  | 11401 |
| 65° | 153347  | 0     | 3219  | 8965  | 12837 |
| 70° | 2367    | 806   | 3978  | 10323 | 15056 |
| 75° | 2063    | 1065  | 4192  | 10447 | 17833 |
| 80° | 1587    | 1587  | 6248  | 12497 | 20332 |
| 85° | 0       | 3162  | 12449 | 12449 | 24898 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle:  $45^\circ$

Luminance: 1646536 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.5    | 0.4       |
| 10°-20°   | 18.8   | 1.0       |
| 20°-30°   | 107.8  | 5.8       |
| 30°-40°   | 503.4  | 26.9      |
| 40°-50°   | 711.9  | 38.1      |
| 50°-60°   | 438.0  | 23.4      |
| 60°-70°   | 66.7   | 3.6       |
| 70°-80°   | 10.6   | 0.6       |
| 80°-90°   | 5.3    | 0.3       |
| 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°-30°    | 133.2  | 7.1       |
| 0°-40°    | 636.6  | 34.1      |
| 0°-60°    | 1786.5 | 95.6      |
| 0°-90°    | 1869.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1869.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 72   | 72  | 72  | 72   | 72   |      |
| 5°  | 77   | 76  | 71  | 64   | 63   | 8    |
| 15° | 120  | 72  | 50  | 46   | 47   | 43   |
| 25° | 1311 | 93  | 28  | 33   | 38   | 807  |
| 35° | 6548 | 142 | 16  | 27   | 35   | 3930 |
| 45° | 6760 | 87  | 11  | 25   | 33   | 5125 |
| 55° | 4334 | 20  | 8   | 24   | 35   | 3688 |
| 65° | 376  | 0   | 8   | 22   | 32   | 681  |
| 75° | 3    | 2   | 6   | 16   | 27   | 3    |
| 85° | 0    | 2   | 6   | 6    | 13   | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°   | 67.5° | 90°  | 112.5° | 135° |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|------|--------|------|
| 0°    | 72.4   | 72.4   | 72.4   | 72.4   | 72.4   | 72.4   | 72.4  | 72.4  | 72.4 | 72.4   | 72.4 |
| 2.5°  | 74.0   | 74.0   | 75.6   | 75.6   | 74.0   | 75.6   | 75.6  | 75.6  | 72.4 | 70.8   | 67.7 |
| 5°    | 77.1   | 77.1   | 77.1   | 78.7   | 77.1   | 77.1   | 75.6  | 74.0  | 70.8 | 66.1   | 64.5 |
| 7.5°  | 80.3   | 80.3   | 78.7   | 80.3   | 78.7   | 78.7   | 75.6  | 72.4  | 67.7 | 63.0   | 59.8 |
| 10°   | 83.4   | 83.4   | 81.9   | 81.9   | 80.3   | 80.3   | 74.0  | 69.3  | 61.4 | 56.7   | 55.1 |
| 12.5° | 92.9   | 92.9   | 91.3   | 89.7   | 86.6   | 85.0   | 72.4  | 64.5  | 55.1 | 50.4   | 48.8 |
| 15°   | 119.7  | 118.1  | 114.9  | 110.2  | 102.3  | 100.8  | 72.4  | 59.8  | 50.4 | 45.7   | 45.7 |
| 17.5° | 163.7  | 162.2  | 157.4  | 144.8  | 130.7  | 125.9  | 72.4  | 53.5  | 44.1 | 40.9   | 40.9 |
| 20°   | 292.8  | 280.2  | 256.6  | 225.1  | 192.1  | 174.8  | 77.1  | 47.2  | 37.8 | 36.2   | 37.8 |
| 21°   | 382.6  | 370.0  | 340.1  | 288.1  | 229.9  | 211.0  | 80.3  | 45.7  | 36.2 | 34.6   | 37.8 |
| 22°   | 521.1  | 506.9  | 445.5  | 374.7  | 291.3  | 258.2  | 81.9  | 42.5  | 33.1 | 33.1   | 36.2 |
| 23°   | 727.4  | 703.7  | 599.8  | 486.5  | 363.7  | 316.4  | 85.0  | 40.9  | 31.5 | 33.1   | 34.6 |
| 24°   | 952.5  | 932.0  | 813.9  | 643.9  | 464.4  | 396.7  | 88.2  | 39.4  | 29.9 | 29.9   | 33.1 |
| 25°   | 1311.4 | 1287.8 | 1078.4 | 812.4  | 588.8  | 477.0  | 92.9  | 36.2  | 28.3 | 28.3   | 33.1 |
| 26°   | 1775.9 | 1667.3 | 1388.6 | 1047.0 | 725.8  | 598.3  | 97.6  | 34.6  | 26.8 | 28.3   | 31.5 |
| 27°   | 2216.7 | 2127.0 | 1813.7 | 1342.9 | 897.4  | 735.2  | 103.9 | 33.1  | 25.2 | 26.8   | 31.5 |
| 28°   | 2796.1 | 2670.1 | 2275.0 | 1698.7 | 1130.4 | 889.5  | 110.2 | 31.5  | 23.6 | 26.8   | 29.9 |
| 29°   | 3444.7 | 3268.4 | 2791.4 | 2098.6 | 1393.3 | 1062.7 | 116.5 | 29.9  | 22.0 | 25.2   | 29.9 |
| 30°   | 3989.4 | 3824.1 | 3347.1 | 2572.5 | 1695.6 | 1291.0 | 122.8 | 28.3  | 20.5 | 25.2   | 29.9 |
| 31°   | 4628.6 | 4378.3 | 3800.5 | 2974.0 | 1955.4 | 1519.3 | 129.1 | 25.2  | 18.9 | 23.6   | 28.3 |
| 32°   | 5146.6 | 4971.9 | 4357.8 | 3427.4 | 2297.0 | 1771.2 | 133.8 | 23.6  | 18.9 | 23.6   | 28.3 |
| 33°   | 5647.3 | 5412.7 | 4819.1 | 3861.9 | 2605.6 | 2029.4 | 138.5 | 22.0  | 17.3 | 22.0   | 28.3 |
| 34°   | 6125.9 | 5910.2 | 5255.2 | 4213.0 | 2896.8 | 2275.0 | 141.7 | 18.9  | 17.3 | 22.0   | 26.8 |
| 35°   | 6547.8 | 6297.5 | 5639.4 | 4556.2 | 3196.0 | 2498.5 | 141.7 | 17.3  | 15.7 | 20.5   | 26.8 |
| 36°   | 6821.7 | 6642.3 | 5973.1 | 4894.7 | 3466.8 | 2711.1 | 141.7 | 15.7  | 14.2 | 20.5   | 25.2 |
| 37°   | 7056.3 | 6846.9 | 6240.8 | 5154.5 | 3666.7 | 2881.1 | 141.7 | 14.2  | 14.2 | 20.5   | 25.2 |
| 38°   | 7152.3 | 6972.9 | 6425.0 | 5384.3 | 3854.0 | 3054.3 | 140.1 | 12.6  | 12.6 | 18.9   | 25.2 |
| 39°   | 7190.1 | 7029.5 | 6563.5 | 5549.6 | 3992.6 | 3170.8 | 137.0 | 11.0  | 12.6 | 18.9   | 25.2 |
| 40°   | 7141.3 | 7020.1 | 6634.4 | 5656.7 | 4102.8 | 3255.8 | 132.2 | 9.4   | 11.0 | 18.9   | 25.2 |
| 42.5° | 6939.8 | 6859.5 | 6618.6 | 5763.8 | 4197.3 | 3318.8 | 114.9 | 6.3   | 11.0 | 17.3   | 25.2 |
| 45°   | 6760.3 | 6672.2 | 6459.6 | 5652.0 | 4074.5 | 3194.4 | 86.6  | 3.1   | 11.0 | 17.3   | 25.2 |
| 47.5° | 6412.4 | 6357.3 | 6190.4 | 5367.0 | 3805.2 | 2914.2 | 61.4  | 1.6   | 9.4  | 15.7   | 23.6 |
| 50°   | 5715.0 | 5663.0 | 5442.6 | 4660.1 | 3273.1 | 2463.9 | 44.1  | 1.6   | 7.9  | 15.7   | 23.6 |
| 52.5° | 5089.9 | 5034.8 | 4718.4 | 3874.5 | 2514.3 | 1805.8 | 28.3  | 1.6   | 7.9  | 15.7   | 23.6 |
| 55°   | 4334.2 | 4238.2 | 3822.6 | 2940.9 | 1782.2 | 1210.7 | 20.5  | 1.6   | 7.9  | 14.2   | 23.6 |
| 57.5° | 3208.6 | 3068.4 | 2696.9 | 2005.7 | 1026.5 | 656.5  | 11.0  | 1.6   | 7.9  | 14.2   | 23.6 |
| 60°   | 2182.1 | 2098.6 | 1687.7 | 1058.0 | 437.7  | 277.1  | 4.7   | 1.6   | 7.9  | 14.2   | 22.0 |
| 62.5° | 1322.5 | 1217.0 | 848.6  | 450.3  | 188.9  | 125.9  | 0.0   | 3.1   | 7.9  | 14.2   | 22.0 |
| 65°   | 376.3  | 333.8  | 222.0  | 102.3  | 53.5   | 40.9   | 0.0   | 3.1   | 7.9  | 14.2   | 22.0 |
| 67.5° | 12.6   | 12.6   | 12.6   | 11.0   | 7.9    | 7.9    | 1.6   | 3.1   | 7.9  | 14.2   | 20.5 |
| 70°   | 4.7    | 4.7    | 4.7    | 3.1    | 3.1    | 1.6    | 1.6   | 3.1   | 7.9  | 12.6   | 20.5 |
| 72.5° | 3.1    | 3.1    | 3.1    | 3.1    | 1.6    | 1.6    | 1.6   | 3.1   | 6.3  | 11.0   | 18.9 |
| 75°   | 3.1    | 3.1    | 3.1    | 1.6    | 1.6    | 1.6    | 1.6   | 4.7   | 6.3  | 11.0   | 15.7 |
| 77.5° | 3.1    | 3.1    | 3.1    | 1.6    | 1.6    | 1.6    | 1.6   | 4.7   | 6.3  | 9.4    | 15.7 |
| 80°   | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6   | 4.7   | 6.3  | 9.4    | 12.6 |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 1.6 | 1.6 | 1.6 | 0.0 | 0.0 | 0.0   | 1.6 | 4.7   | 6.3 | 6.3    | 9.4  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.6 | 4.7   | 6.3 | 4.7    | 6.3  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.6 | 4.7   | 4.7 | 4.7    | 3.1  |
| 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):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 72.4   | 72.4 |
| 2.5°  | 67.7   | 67.7 |
| 5°    | 63.0   | 63.0 |
| 7.5°  | 58.3   | 58.3 |
| 10°   | 53.5   | 53.5 |
| 12.5° | 50.4   | 50.4 |
| 15°   | 45.7   | 47.2 |
| 17.5° | 42.5   | 44.1 |
| 20°   | 40.9   | 42.5 |
| 21°   | 40.9   | 42.5 |
| 22°   | 39.4   | 40.9 |
| 23°   | 39.4   | 40.9 |
| 24°   | 37.8   | 39.4 |
| 25°   | 36.2   | 37.8 |
| 26°   | 36.2   | 37.8 |
| 27°   | 36.2   | 37.8 |
| 28°   | 34.6   | 37.8 |
| 29°   | 34.6   | 36.2 |
| 30°   | 34.6   | 36.2 |
| 31°   | 33.1   | 36.2 |
| 32°   | 33.1   | 36.2 |
| 33°   | 33.1   | 34.6 |
| 34°   | 31.5   | 34.6 |
| 35°   | 31.5   | 34.6 |
| 36°   | 31.5   | 34.6 |
| 37°   | 31.5   | 33.1 |
| 38°   | 31.5   | 34.6 |
| 39°   | 31.5   | 33.1 |
| 40°   | 31.5   | 33.1 |
| 42.5° | 31.5   | 33.1 |
| 45°   | 31.5   | 33.1 |
| 47.5° | 31.5   | 34.6 |
| 50°   | 31.5   | 34.6 |
| 52.5° | 31.5   | 34.6 |
| 55°   | 31.5   | 34.6 |
| 57.5° | 31.5   | 33.1 |
| 60°   | 31.5   | 33.1 |
| 62.5° | 29.9   | 33.1 |
| 65°   | 29.9   | 31.5 |
| 67.5° | 29.9   | 31.5 |
| 70°   | 28.3   | 29.9 |
| 72.5° | 26.8   | 28.3 |
| 75°   | 23.6   | 26.8 |
| 77.5° | 22.0   | 23.6 |
| 80°   | 18.9   | 20.5 |

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**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 15.7   | 15.7 |
| 85°   | 11.0   | 12.6 |
| 87.5° | 6.3    | 6.3  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)