

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: P1318284

Luminaire Tested: P3SQAS20R309835D010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1318284  
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: P3SQAS20R309835D010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 98CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

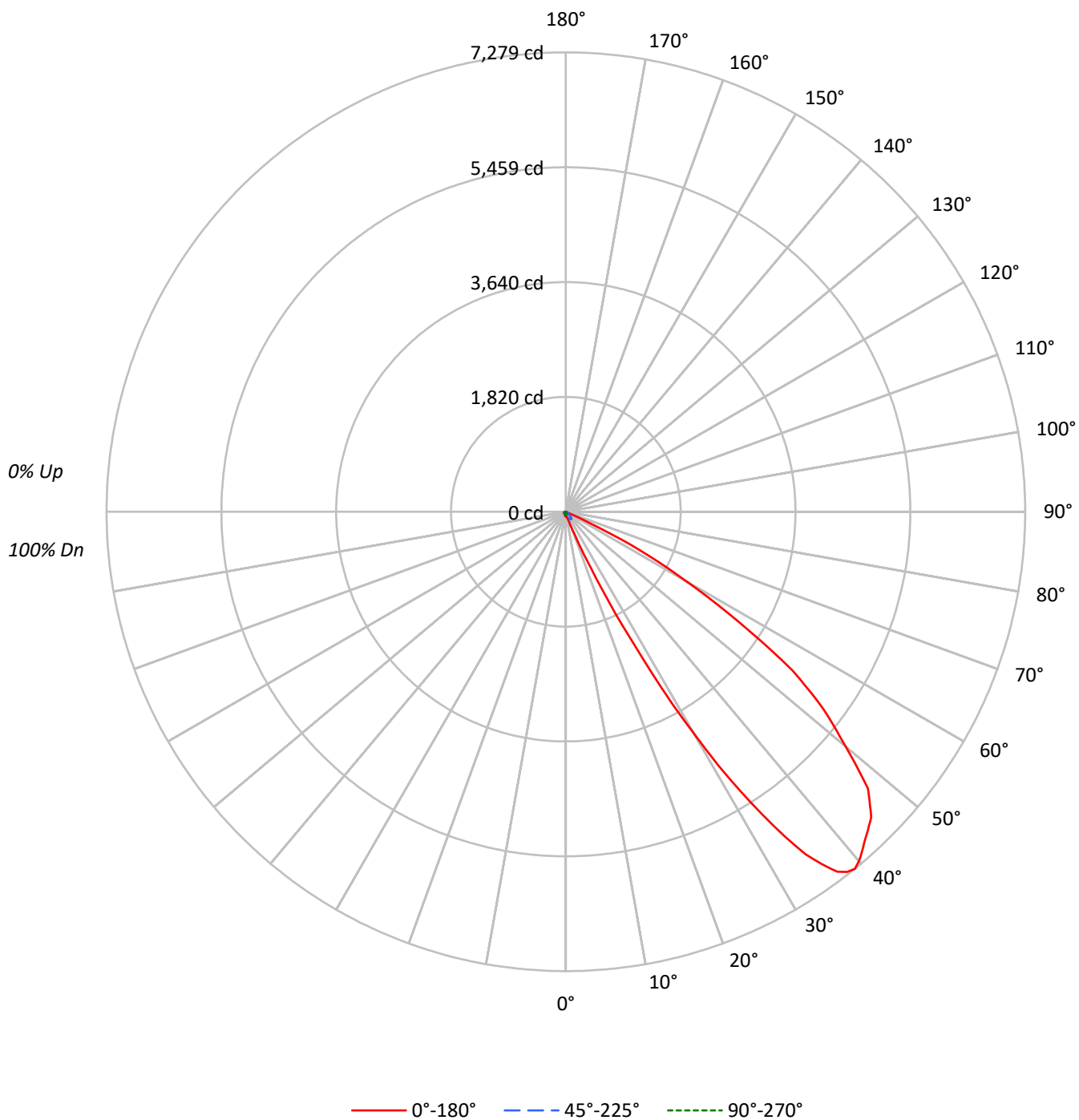
Lumens per Lamp: N/A  
Luminaire Lumens: 1892.0 lumens  
Efficiency: N/A  
Efficacy: 69.1 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.4  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  |
| 5   | 75  | 62  | 52  | 46  | 73  | 60  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 54  | 49  | 44  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 31  | 44  | 36  | 31  | 42  | 36  | 31  |
| 8   | 56  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 26  | 39  | 32  | 26  | 37  | 31  | 26  |
| 9   | 52  | 37  | 29  | 23  | 50  | 37  | 28  | 23  | 36  | 28  | 22  | 34  | 27  | 22  | 33  | 27  | 22  |
| 10  | 48  | 33  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 24  | 19  | 31  | 24  | 19  | 30  | 24  | 19  |

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

|     | 0°      | 45°   | 90°   | 135°  | 180°  |
|-----|---------|-------|-------|-------|-------|
| 0°  | 12624   | 12624 | 12624 | 12624 | 12624 |
| 5°  | 13502   | 13225 | 12396 | 11289 | 11012 |
| 10° | 14777   | 13098 | 10878 | 9758  | 9478  |
| 15° | 21592   | 13069 | 9093  | 8237  | 8523  |
| 20° | 54323   | 14314 | 7001  | 7001  | 7881  |
| 25° | 252279  | 17863 | 5454  | 6366  | 7259  |
| 30° | 803119  | 24719 | 4117  | 6026  | 7298  |
| 35° | 1393588 | 30149 | 3343  | 5698  | 7380  |
| 40° | 1625274 | 30103 | 2518  | 5733  | 7531  |
| 45° | 1666800 | 21360 | 2728  | 6211  | 8159  |
| 50° | 1550060 | 11950 | 2143  | 6404  | 9404  |
| 55° | 1317425 | 6215  | 2402  | 7176  | 10539 |
| 60° | 760845  | 1653  | 2756  | 7681  | 11539 |
| 65° | 155222  | 0     | 3260  | 9088  | 13000 |
| 70° | 2417    | 806   | 4028  | 10423 | 15257 |
| 75° | 2129    | 1065  | 4259  | 10580 | 18033 |
| 80° | 1587    | 1587  | 6347  | 12596 | 20530 |
| 85° | 0       | 3162  | 12647 | 12647 | 25096 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1666800 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.6    | 0.4       |
| 10°-20°   | 19.1   | 1.0       |
| 20°-30°   | 109.1  | 5.8       |
| 30°-40°   | 509.6  | 26.9      |
| 40°-50°   | 720.7  | 38.1      |
| 50°-60°   | 443.4  | 23.4      |
| 60°-70°   | 67.5   | 3.6       |
| 70°-80°   | 10.7   | 0.6       |
| 80°-90°   | 5.4    | 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°    | 134.8  | 7.1       |
| 0°-40°    | 644.4  | 34.1      |
| 0°-60°    | 1808.5 | 95.6      |
| 0°-90°    | 1892.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1892.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 73   | 73  | 73  | 73   | 73   |      |
| 5°  | 78   | 76  | 72  | 65   | 64   | 8    |
| 15° | 121  | 73  | 51  | 46   | 48   | 43   |
| 25° | 1328 | 94  | 29  | 34   | 38   | 817  |
| 35° | 6628 | 143 | 16  | 27   | 35   | 3978 |
| 45° | 6844 | 88  | 11  | 26   | 34   | 5188 |
| 55° | 4388 | 21  | 8   | 24   | 35   | 3733 |
| 65° | 381  | 0   | 8   | 22   | 32   | 689  |
| 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°    | 73.3   | 73.3   | 73.3   | 73.3   | 73.3   | 73.3   | 73.3  | 73.3  | 73.3 | 73.3   | 73.3 |
| 2.5°  | 74.9   | 74.9   | 76.5   | 76.5   | 74.9   | 76.5   | 76.5  | 76.5  | 73.3 | 71.7   | 68.5 |
| 5°    | 78.1   | 78.1   | 78.1   | 79.7   | 78.1   | 78.1   | 76.5  | 74.9  | 71.7 | 66.9   | 65.3 |
| 7.5°  | 81.3   | 81.3   | 79.7   | 81.3   | 79.7   | 79.7   | 76.5  | 73.3  | 68.5 | 63.7   | 60.6 |
| 10°   | 84.5   | 84.5   | 82.9   | 82.9   | 81.3   | 81.3   | 74.9  | 70.1  | 62.2 | 57.4   | 55.8 |
| 12.5° | 94.0   | 94.0   | 92.4   | 90.8   | 87.7   | 86.1   | 73.3  | 65.3  | 55.8 | 51.0   | 49.4 |
| 15°   | 121.1  | 119.5  | 116.3  | 111.6  | 103.6  | 102.0  | 73.3  | 60.6  | 51.0 | 46.2   | 46.2 |
| 17.5° | 165.7  | 164.2  | 159.4  | 146.6  | 132.3  | 127.5  | 73.3  | 54.2  | 44.6 | 41.4   | 41.4 |
| 20°   | 296.4  | 283.7  | 259.8  | 227.9  | 194.4  | 176.9  | 78.1  | 47.8  | 38.2 | 36.7   | 38.2 |
| 21°   | 387.3  | 374.5  | 344.2  | 291.7  | 232.7  | 213.6  | 81.3  | 46.2  | 36.7 | 35.1   | 38.2 |
| 22°   | 527.5  | 513.2  | 451.0  | 379.3  | 294.8  | 261.4  | 82.9  | 43.0  | 33.5 | 33.5   | 36.7 |
| 23°   | 736.3  | 712.4  | 607.2  | 492.5  | 368.2  | 320.3  | 86.1  | 41.4  | 31.9 | 33.5   | 35.1 |
| 24°   | 964.2  | 943.5  | 824.0  | 651.8  | 470.2  | 401.6  | 89.2  | 39.8  | 30.3 | 30.3   | 33.5 |
| 25°   | 1327.6 | 1303.7 | 1091.7 | 822.4  | 596.1  | 482.9  | 94.0  | 36.7  | 28.7 | 28.7   | 33.5 |
| 26°   | 1797.7 | 1687.8 | 1405.7 | 1059.8 | 734.7  | 605.6  | 98.8  | 35.1  | 27.1 | 28.7   | 31.9 |
| 27°   | 2244.0 | 2153.1 | 1836.0 | 1359.5 | 908.4  | 744.3  | 105.2 | 33.5  | 25.5 | 27.1   | 31.9 |
| 28°   | 2830.5 | 2703.0 | 2303.0 | 1719.6 | 1144.3 | 900.5  | 111.6 | 31.9  | 23.9 | 27.1   | 30.3 |
| 29°   | 3487.1 | 3308.6 | 2825.7 | 2124.5 | 1410.5 | 1075.8 | 117.9 | 30.3  | 22.3 | 25.5   | 30.3 |
| 30°   | 4038.5 | 3871.2 | 3388.3 | 2604.2 | 1716.5 | 1306.9 | 124.3 | 28.7  | 20.7 | 25.5   | 30.3 |
| 31°   | 4685.6 | 4432.2 | 3847.3 | 3010.6 | 1979.4 | 1538.0 | 130.7 | 25.5  | 19.1 | 23.9   | 28.7 |
| 32°   | 5209.9 | 5033.0 | 4411.5 | 3469.6 | 2325.3 | 1793.0 | 135.5 | 23.9  | 19.1 | 23.9   | 28.7 |
| 33°   | 5716.7 | 5479.3 | 4878.4 | 3909.4 | 2637.6 | 2054.3 | 140.2 | 22.3  | 17.5 | 22.3   | 28.7 |
| 34°   | 6201.2 | 5982.9 | 5319.9 | 4264.9 | 2932.5 | 2303.0 | 143.4 | 19.1  | 17.5 | 22.3   | 27.1 |
| 35°   | 6628.4 | 6375.0 | 5708.8 | 4612.3 | 3235.3 | 2529.3 | 143.4 | 17.5  | 15.9 | 20.7   | 27.1 |
| 36°   | 6905.7 | 6724.0 | 6046.7 | 4954.9 | 3509.4 | 2744.4 | 143.4 | 15.9  | 14.3 | 20.7   | 25.5 |
| 37°   | 7143.1 | 6931.2 | 6317.6 | 5217.9 | 3711.8 | 2916.5 | 143.4 | 14.3  | 14.3 | 20.7   | 25.5 |
| 38°   | 7240.4 | 7058.7 | 6504.1 | 5450.6 | 3901.5 | 3091.9 | 141.8 | 12.7  | 12.7 | 19.1   | 25.5 |
| 39°   | 7278.6 | 7116.1 | 6644.3 | 5617.9 | 4041.7 | 3209.8 | 138.7 | 11.2  | 12.7 | 19.1   | 25.5 |
| 40°   | 7229.2 | 7106.5 | 6716.0 | 5726.3 | 4153.3 | 3295.9 | 133.9 | 9.6   | 11.2 | 19.1   | 25.5 |
| 42.5° | 7025.2 | 6943.9 | 6700.1 | 5834.7 | 4248.9 | 3359.6 | 116.3 | 6.4   | 11.2 | 17.5   | 25.5 |
| 45°   | 6843.5 | 6754.3 | 6539.1 | 5721.5 | 4124.6 | 3233.7 | 87.7  | 3.2   | 11.2 | 17.5   | 25.5 |
| 47.5° | 6491.3 | 6435.5 | 6266.6 | 5433.1 | 3852.1 | 2950.0 | 62.2  | 1.6   | 9.6  | 15.9   | 23.9 |
| 50°   | 5785.3 | 5732.7 | 5509.6 | 4717.5 | 3313.4 | 2494.2 | 44.6  | 1.6   | 8.0  | 15.9   | 23.9 |
| 52.5° | 5152.6 | 5096.8 | 4776.4 | 3922.2 | 2545.2 | 1828.0 | 28.7  | 1.6   | 8.0  | 15.9   | 23.9 |
| 55°   | 4387.6 | 4290.4 | 3869.6 | 2977.1 | 1804.1 | 1225.6 | 20.7  | 1.6   | 8.0  | 14.3   | 23.9 |
| 57.5° | 3248.0 | 3106.2 | 2730.1 | 2030.4 | 1039.1 | 664.6  | 11.2  | 1.6   | 8.0  | 14.3   | 23.9 |
| 60°   | 2208.9 | 2124.5 | 1708.5 | 1071.0 | 443.1  | 280.5  | 4.8   | 1.6   | 8.0  | 14.3   | 22.3 |
| 62.5° | 1338.7 | 1232.0 | 859.0  | 455.8  | 191.2  | 127.5  | 0.0   | 3.2   | 8.0  | 14.3   | 22.3 |
| 65°   | 380.9  | 337.9  | 224.7  | 103.6  | 54.2   | 41.4   | 0.0   | 3.2   | 8.0  | 14.3   | 22.3 |
| 67.5° | 12.7   | 12.7   | 12.7   | 11.2   | 8.0    | 8.0    | 1.6   | 3.2   | 8.0  | 14.3   | 20.7 |
| 70°   | 4.8    | 4.8    | 4.8    | 3.2    | 3.2    | 1.6    | 1.6   | 3.2   | 8.0  | 12.7   | 20.7 |
| 72.5° | 3.2    | 3.2    | 3.2    | 3.2    | 1.6    | 1.6    | 1.6   | 3.2   | 6.4  | 11.2   | 19.1 |
| 75°   | 3.2    | 3.2    | 3.2    | 1.6    | 1.6    | 1.6    | 1.6   | 4.8   | 6.4  | 11.2   | 15.9 |
| 77.5° | 3.2    | 3.2    | 3.2    | 1.6    | 1.6    | 1.6    | 1.6   | 4.8   | 6.4  | 9.6    | 15.9 |
| 80°   | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6   | 4.8   | 6.4  | 9.6    | 12.7 |



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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 | 4.8   | 6.4 | 6.4    | 9.6  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.6 | 4.8   | 6.4 | 4.8    | 6.4  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.6 | 4.8   | 4.8 | 4.8    | 3.2  |
| 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):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 73.3   | 73.3 |
| 2.5°  | 68.5   | 68.5 |
| 5°    | 63.7   | 63.7 |
| 7.5°  | 59.0   | 59.0 |
| 10°   | 54.2   | 54.2 |
| 12.5° | 51.0   | 51.0 |
| 15°   | 46.2   | 47.8 |
| 17.5° | 43.0   | 44.6 |
| 20°   | 41.4   | 43.0 |
| 21°   | 41.4   | 43.0 |
| 22°   | 39.8   | 41.4 |
| 23°   | 39.8   | 41.4 |
| 24°   | 38.2   | 39.8 |
| 25°   | 36.7   | 38.2 |
| 26°   | 36.7   | 38.2 |
| 27°   | 36.7   | 38.2 |
| 28°   | 35.1   | 38.2 |
| 29°   | 35.1   | 36.7 |
| 30°   | 35.1   | 36.7 |
| 31°   | 33.5   | 36.7 |
| 32°   | 33.5   | 36.7 |
| 33°   | 33.5   | 35.1 |
| 34°   | 31.9   | 35.1 |
| 35°   | 31.9   | 35.1 |
| 36°   | 31.9   | 35.1 |
| 37°   | 31.9   | 33.5 |
| 38°   | 31.9   | 35.1 |
| 39°   | 31.9   | 33.5 |
| 40°   | 31.9   | 33.5 |
| 42.5° | 31.9   | 33.5 |
| 45°   | 31.9   | 33.5 |
| 47.5° | 31.9   | 35.1 |
| 50°   | 31.9   | 35.1 |
| 52.5° | 31.9   | 35.1 |
| 55°   | 31.9   | 35.1 |
| 57.5° | 31.9   | 33.5 |
| 60°   | 31.9   | 33.5 |
| 62.5° | 30.3   | 33.5 |
| 65°   | 30.3   | 31.9 |
| 67.5° | 30.3   | 31.9 |
| 70°   | 28.7   | 30.3 |
| 72.5° | 27.1   | 28.7 |
| 75°   | 23.9   | 27.1 |
| 77.5° | 22.3   | 23.9 |
| 80°   | 19.1   | 20.7 |



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**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 15.9   | 15.9 |
| 85°   | 11.2   | 12.7 |
| 87.5° | 6.4    | 6.4  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)