

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: P1316094

Luminaire Tested: P3SQAS09R309827DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1316094  
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: P3SQAS09R309827DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R30 optic, 2700K CCT AND, 98CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

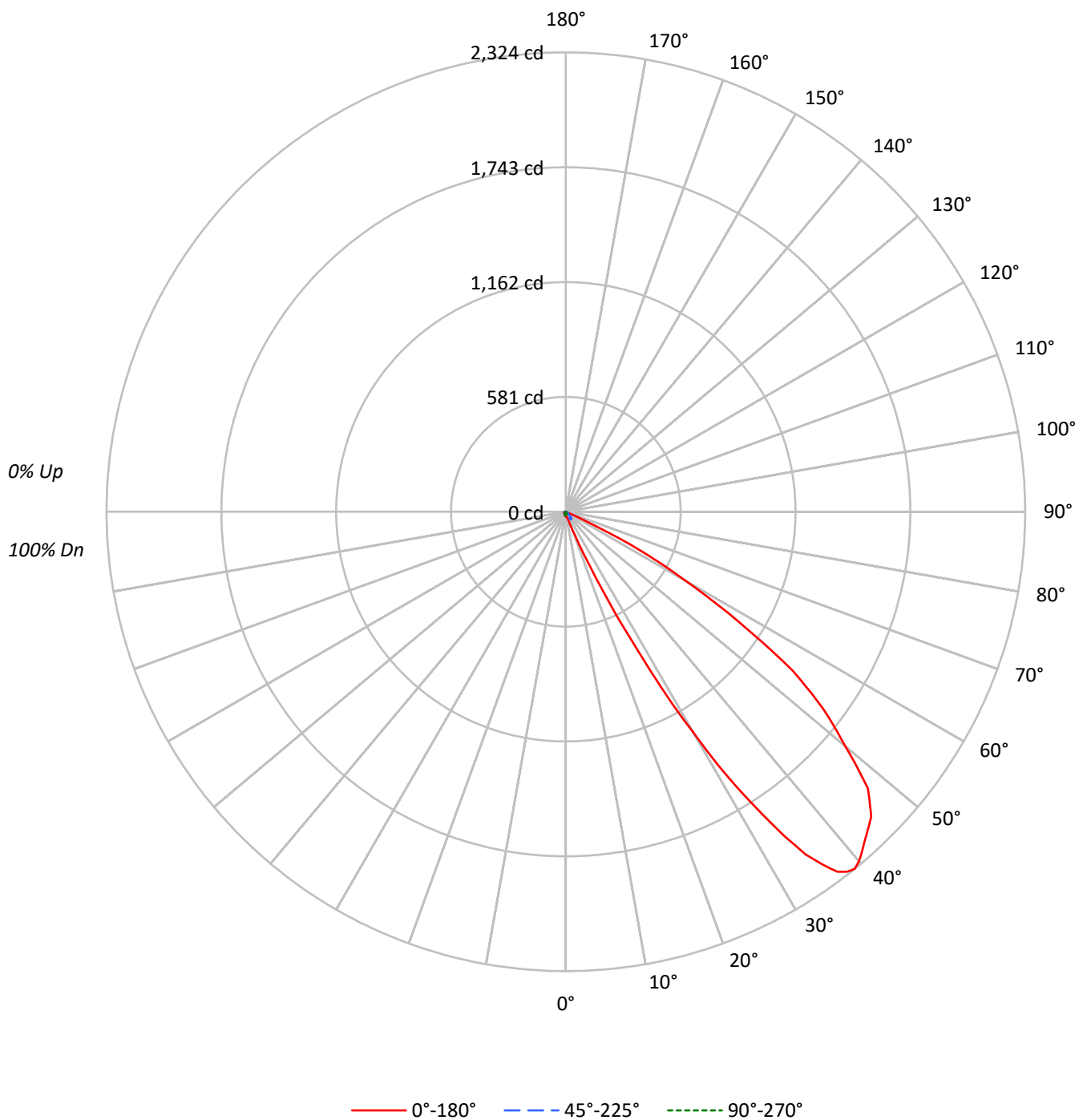
Lumens per Lamp: N/A  
Luminaire Lumens: 604.0 lumens  
Efficiency: N/A  
Efficacy: 54.9 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11  
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°  | 4030   | 4030 | 4030 | 4030 | 4030 |
| 5°  | 4305   | 4218 | 3959 | 3613 | 3527 |
| 10° | 4722   | 4180 | 3463 | 3113 | 3025 |
| 15° | 6900   | 4172 | 2906 | 2639 | 2728 |
| 20° | 17338  | 4564 | 2236 | 2236 | 2511 |
| 25° | 80533  | 5701 | 1748 | 2033 | 2318 |
| 30° | 256397 | 7895 | 1313 | 1929 | 2327 |
| 35° | 444878 | 9629 | 1072 | 1808 | 2355 |
| 40° | 518841 | 9600 | 809  | 1821 | 2406 |
| 45° | 532105 | 6820 | 877  | 1973 | 2606 |
| 50° | 494842 | 3805 | 670  | 2036 | 3001 |
| 55° | 420576 | 1982 | 751  | 2282 | 3363 |
| 60° | 242903 | 517  | 861  | 2446 | 3686 |
| 65° | 49554  | 0    | 1019 | 2893 | 4157 |
| 70° | 755    | 252  | 1259 | 3323 | 4884 |
| 75° | 665    | 333  | 1331 | 3394 | 5723 |
| 80° | 496    | 496  | 1984 | 4066 | 6546 |
| 85° | 0      | 988  | 3952 | 3952 | 8102 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 532105 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.1    | 0.4       |
| 10°-20°   | 6.1    | 1.0       |
| 20°-30°   | 34.8   | 5.8       |
| 30°-40°   | 162.7  | 26.9      |
| 40°-50°   | 230.1  | 38.1      |
| 50°-60°   | 141.5  | 23.4      |
| 60°-70°   | 21.6   | 3.6       |
| 70°-80°   | 3.4    | 0.6       |
| 80°-90°   | 1.7    | 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°    | 43.0   | 7.1       |
| 0°-40°    | 205.7  | 34.1      |
| 0°-60°    | 577.3  | 95.6      |
| 0°-90°    | 604.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 604.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 23   | 23  | 23  | 23   | 23   |      |
| 5°  | 25   | 24  | 23  | 21   | 20   | 2    |
| 15° | 39   | 23  | 16  | 15   | 15   | 14   |
| 25° | 424  | 30  | 9   | 11   | 12   | 261  |
| 35° | 2116 | 46  | 5   | 9    | 11   | 1270 |
| 45° | 2185 | 28  | 4   | 8    | 11   | 1656 |
| 55° | 1401 | 7   | 2   | 8    | 11   | 1192 |
| 65° | 122  | 0   | 2   | 7    | 10   | 220  |
| 75° | 1    | 0   | 2   | 5    | 9    | 1    |
| 85° | 0    | 0   | 2   | 2    | 4    | 0    |
| 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°    | 23.4   | 23.4   | 23.4   | 23.4   | 23.4   | 23.4   | 23.4 | 23.4  | 23.4 | 23.4   | 23.4 |
| 2.5°  | 23.9   | 23.9   | 24.4   | 24.4   | 23.9   | 24.4   | 24.4 | 24.4  | 23.4 | 22.9   | 21.9 |
| 5°    | 24.9   | 24.9   | 24.9   | 25.4   | 24.9   | 24.9   | 24.4 | 23.9  | 22.9 | 21.4   | 20.9 |
| 7.5°  | 25.9   | 25.9   | 25.4   | 25.9   | 25.4   | 25.4   | 24.4 | 23.4  | 21.9 | 20.4   | 19.3 |
| 10°   | 27.0   | 27.0   | 26.5   | 26.5   | 25.9   | 25.9   | 23.9 | 22.4  | 19.8 | 18.3   | 17.8 |
| 12.5° | 30.0   | 30.0   | 29.5   | 29.0   | 28.0   | 27.5   | 23.4 | 20.9  | 17.8 | 16.3   | 15.8 |
| 15°   | 38.7   | 38.2   | 37.1   | 35.6   | 33.1   | 32.6   | 23.4 | 19.3  | 16.3 | 14.8   | 14.8 |
| 17.5° | 52.9   | 52.4   | 50.9   | 46.8   | 42.2   | 40.7   | 23.4 | 17.3  | 14.2 | 13.2   | 13.2 |
| 20°   | 94.6   | 90.6   | 82.9   | 72.8   | 62.1   | 56.5   | 24.9 | 15.3  | 12.2 | 11.7   | 12.2 |
| 21°   | 123.6  | 119.6  | 109.9  | 93.1   | 74.3   | 68.2   | 25.9 | 14.8  | 11.7 | 11.2   | 12.2 |
| 22°   | 168.4  | 163.8  | 144.0  | 121.1  | 94.1   | 83.4   | 26.5 | 13.7  | 10.7 | 10.7   | 11.7 |
| 23°   | 235.1  | 227.4  | 193.8  | 157.2  | 117.5  | 102.3  | 27.5 | 13.2  | 10.2 | 10.7   | 11.2 |
| 24°   | 307.8  | 301.2  | 263.0  | 208.1  | 150.1  | 128.2  | 28.5 | 12.7  | 9.7  | 9.7    | 10.7 |
| 25°   | 423.8  | 416.2  | 348.5  | 262.5  | 190.3  | 154.2  | 30.0 | 11.7  | 9.2  | 9.2    | 10.7 |
| 26°   | 573.9  | 538.8  | 448.7  | 338.3  | 234.5  | 193.3  | 31.5 | 11.2  | 8.6  | 9.2    | 10.2 |
| 27°   | 716.4  | 687.4  | 586.1  | 434.0  | 290.0  | 237.6  | 33.6 | 10.7  | 8.1  | 8.6    | 10.2 |
| 28°   | 903.6  | 862.9  | 735.2  | 549.0  | 365.3  | 287.5  | 35.6 | 10.2  | 7.6  | 8.6    | 9.7  |
| 29°   | 1113.2 | 1056.2 | 902.1  | 678.2  | 450.3  | 343.4  | 37.7 | 9.7   | 7.1  | 8.1    | 9.7  |
| 30°   | 1289.3 | 1235.8 | 1081.7 | 831.4  | 548.0  | 417.2  | 39.7 | 9.2   | 6.6  | 8.1    | 9.7  |
| 31°   | 1495.8 | 1414.9 | 1228.2 | 961.1  | 631.9  | 491.0  | 41.7 | 8.1   | 6.1  | 7.6    | 9.2  |
| 32°   | 1663.2 | 1606.7 | 1408.3 | 1107.6 | 742.3  | 572.4  | 43.2 | 7.6   | 6.1  | 7.6    | 9.2  |
| 33°   | 1825.0 | 1749.2 | 1557.4 | 1248.0 | 842.0  | 655.8  | 44.8 | 7.1   | 5.6  | 7.1    | 9.2  |
| 34°   | 1979.7 | 1910.0 | 1698.3 | 1361.5 | 936.2  | 735.2  | 45.8 | 6.1   | 5.6  | 7.1    | 8.6  |
| 35°   | 2116.0 | 2035.1 | 1822.5 | 1472.4 | 1032.8 | 807.4  | 45.8 | 5.6   | 5.1  | 6.6    | 8.6  |
| 36°   | 2204.6 | 2146.6 | 1930.3 | 1581.8 | 1120.3 | 876.1  | 45.8 | 5.1   | 4.6  | 6.6    | 8.1  |
| 37°   | 2280.4 | 2212.7 | 2016.8 | 1665.8 | 1185.0 | 931.1  | 45.8 | 4.6   | 4.6  | 6.6    | 8.1  |
| 38°   | 2311.4 | 2253.4 | 2076.3 | 1740.0 | 1245.5 | 987.0  | 45.3 | 4.1   | 4.1  | 6.1    | 8.1  |
| 39°   | 2323.6 | 2271.7 | 2121.1 | 1793.5 | 1290.3 | 1024.7 | 44.3 | 3.6   | 4.1  | 6.1    | 8.1  |
| 40°   | 2307.8 | 2268.7 | 2144.0 | 1828.1 | 1325.9 | 1052.2 | 42.7 | 3.1   | 3.6  | 6.1    | 8.1  |
| 42.5° | 2242.7 | 2216.8 | 2138.9 | 1862.7 | 1356.4 | 1072.5 | 37.1 | 2.0   | 3.6  | 5.6    | 8.1  |
| 45°   | 2184.7 | 2156.2 | 2087.5 | 1826.5 | 1316.7 | 1032.3 | 28.0 | 1.0   | 3.6  | 5.6    | 8.1  |
| 47.5° | 2072.3 | 2054.5 | 2000.5 | 1734.4 | 1229.7 | 941.8  | 19.8 | 0.5   | 3.1  | 5.1    | 7.6  |
| 50°   | 1846.9 | 1830.1 | 1758.9 | 1506.0 | 1057.8 | 796.2  | 14.2 | 0.5   | 2.5  | 5.1    | 7.6  |
| 52.5° | 1644.9 | 1627.1 | 1524.8 | 1252.1 | 812.5  | 583.6  | 9.2  | 0.5   | 2.5  | 5.1    | 7.6  |
| 55°   | 1400.7 | 1369.6 | 1235.3 | 950.4  | 575.9  | 391.3  | 6.6  | 0.5   | 2.5  | 4.6    | 7.6  |
| 57.5° | 1036.9 | 991.6  | 871.5  | 648.2  | 331.7  | 212.2  | 3.6  | 0.5   | 2.5  | 4.6    | 7.6  |
| 60°   | 705.2  | 678.2  | 545.4  | 341.9  | 141.4  | 89.5   | 1.5  | 0.5   | 2.5  | 4.6    | 7.1  |
| 62.5° | 427.4  | 393.3  | 274.2  | 145.5  | 61.1   | 40.7   | 0.0  | 1.0   | 2.5  | 4.6    | 7.1  |
| 65°   | 121.6  | 107.9  | 71.7   | 33.1   | 17.3   | 13.2   | 0.0  | 1.0   | 2.5  | 4.6    | 7.1  |
| 67.5° | 4.1    | 4.1    | 4.1    | 3.6    | 2.5    | 2.5    | 0.5  | 1.0   | 2.5  | 4.6    | 6.6  |
| 70°   | 1.5    | 1.5    | 1.5    | 1.0    | 1.0    | 0.5    | 0.5  | 1.0   | 2.5  | 4.1    | 6.6  |
| 72.5° | 1.0    | 1.0    | 1.0    | 1.0    | 0.5    | 0.5    | 0.5  | 1.0   | 2.0  | 3.6    | 6.1  |
| 75°   | 1.0    | 1.0    | 1.0    | 0.5    | 0.5    | 0.5    | 0.5  | 1.5   | 2.0  | 3.6    | 5.1  |
| 77.5° | 1.0    | 1.0    | 1.0    | 0.5    | 0.5    | 0.5    | 0.5  | 1.5   | 2.0  | 3.1    | 5.1  |
| 80°   | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5    | 0.5  | 1.5   | 2.0  | 3.1    | 4.1  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0   | 0.5 | 1.5   | 2.0 | 2.0    | 3.1  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.5 | 1.5   | 2.0 | 1.5    | 2.0  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.5 | 1.5   | 1.5 | 1.5    | 1.0  |
| 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°    | 23.4   | 23.4 |
| 2.5°  | 21.9   | 21.9 |
| 5°    | 20.4   | 20.4 |
| 7.5°  | 18.8   | 18.8 |
| 10°   | 17.3   | 17.3 |
| 12.5° | 16.3   | 16.3 |
| 15°   | 14.8   | 15.3 |
| 17.5° | 13.7   | 14.2 |
| 20°   | 13.2   | 13.7 |
| 21°   | 13.2   | 13.7 |
| 22°   | 12.7   | 13.2 |
| 23°   | 12.7   | 13.2 |
| 24°   | 12.2   | 12.7 |
| 25°   | 11.7   | 12.2 |
| 26°   | 11.7   | 12.2 |
| 27°   | 11.7   | 12.2 |
| 28°   | 11.2   | 12.2 |
| 29°   | 11.2   | 11.7 |
| 30°   | 11.2   | 11.7 |
| 31°   | 10.7   | 11.7 |
| 32°   | 10.7   | 11.7 |
| 33°   | 10.7   | 11.2 |
| 34°   | 10.2   | 11.2 |
| 35°   | 10.2   | 11.2 |
| 36°   | 10.2   | 11.2 |
| 37°   | 10.2   | 10.7 |
| 38°   | 10.2   | 11.2 |
| 39°   | 10.2   | 10.7 |
| 40°   | 10.2   | 10.7 |
| 42.5° | 10.2   | 10.7 |
| 45°   | 10.2   | 10.7 |
| 47.5° | 10.2   | 11.2 |
| 50°   | 10.2   | 11.2 |
| 52.5° | 10.2   | 11.2 |
| 55°   | 10.2   | 11.2 |
| 57.5° | 10.2   | 10.7 |
| 60°   | 10.2   | 10.7 |
| 62.5° | 9.7    | 10.7 |
| 65°   | 9.7    | 10.2 |
| 67.5° | 9.7    | 10.2 |
| 70°   | 9.2    | 9.7  |
| 72.5° | 8.6    | 9.2  |
| 75°   | 7.6    | 8.6  |
| 77.5° | 7.1    | 7.6  |
| 80°   | 6.1    | 6.6  |



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CATALOG NUMBER: P3SQAS09R309827DE010 E3SQCA451MMS

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 5.1    | 5.1  |
| 85°   | 3.6    | 4.1  |
| 87.5° | 2.0    | 2.0  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)