

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: P1310241

Luminaire Tested: P3SQAS13R309040DE010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1310241  
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: P3SQAS13R309040DE010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 90CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

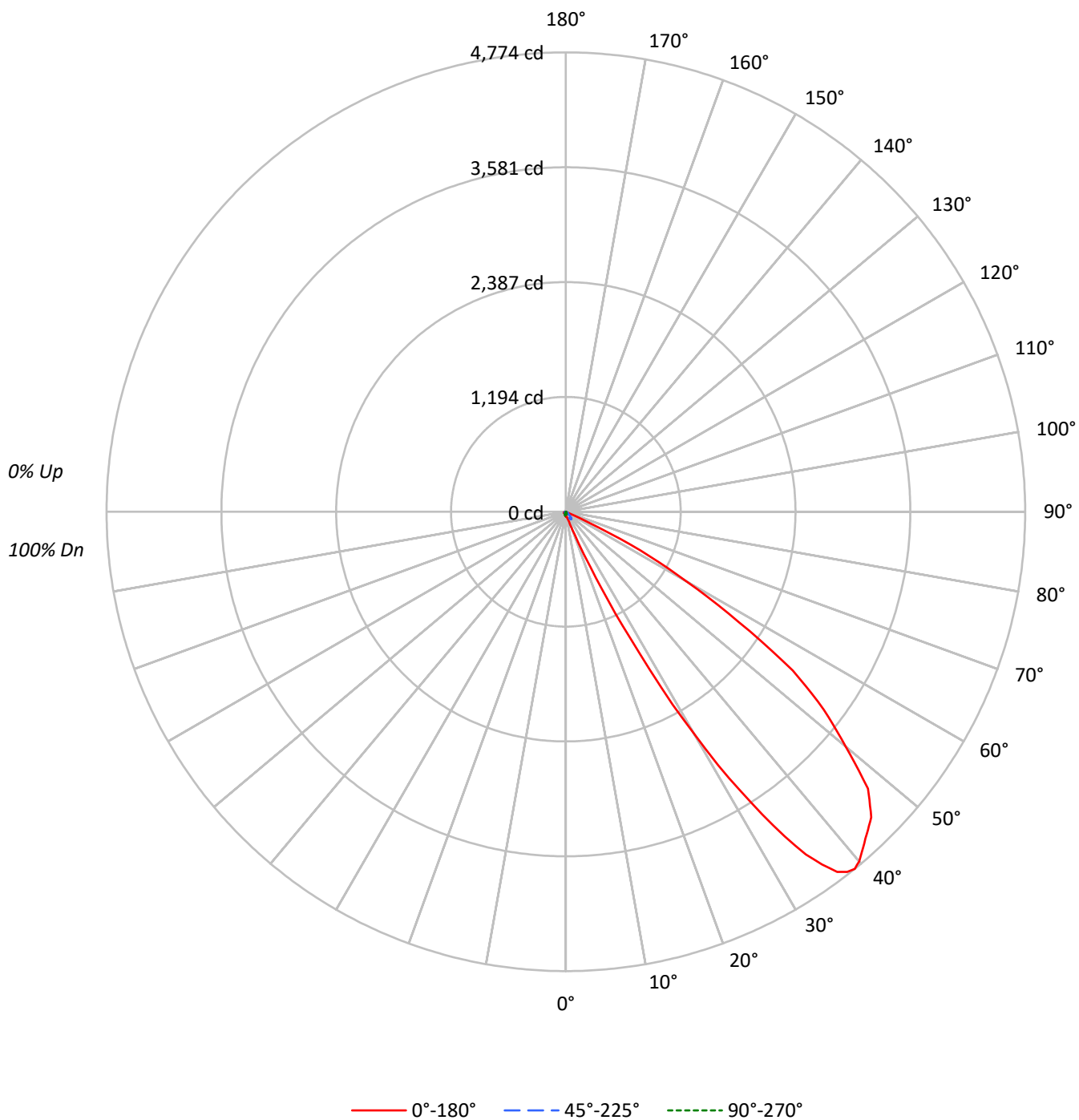
Lumens per Lamp: N/A  
Luminaire Lumens: 1241.0 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.6  
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°  | 8284    | 8284  | 8284 | 8284 | 8284  |
| 5°  | 8851    | 8679  | 8125 | 7417 | 7226  |
| 10° | 9688    | 8587  | 7135 | 6401 | 6208  |
| 15° | 14157   | 8576  | 5973 | 5402 | 5599  |
| 20° | 35629   | 9384  | 4600 | 4600 | 5168  |
| 25° | 165475  | 11725 | 3573 | 4181 | 4770  |
| 30° | 526795  | 16208 | 2705 | 3957 | 4773  |
| 35° | 914082  | 19784 | 2208 | 3742 | 4836  |
| 40° | 1066055 | 19739 | 1641 | 3755 | 4946  |
| 45° | 1093290 | 14005 | 1778 | 4067 | 5358  |
| 50° | 1016717 | 7850  | 1393 | 4207 | 6162  |
| 55° | 864121  | 4084  | 1561 | 4714 | 6906  |
| 60° | 499067  | 1068  | 1791 | 5029 | 7578  |
| 65° | 101797  | 0     | 2119 | 5950 | 8517  |
| 70° | 1561    | 504   | 2618 | 6848 | 10021 |
| 75° | 1397    | 665   | 2795 | 6987 | 11844 |
| 80° | 992     | 992   | 4166 | 8331 | 13488 |
| 85° | 0       | 1976  | 8299 | 8299 | 16599 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1093290 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 4.3    | 0.4       |
| 10°-20°   | 12.5   | 1.0       |
| 20°-30°   | 71.6   | 5.8       |
| 30°-40°   | 334.3  | 26.9      |
| 40°-50°   | 472.7  | 38.1      |
| 50°-60°   | 290.8  | 23.4      |
| 60°-70°   | 44.3   | 3.6       |
| 70°-80°   | 7.0    | 0.6       |
| 80°-90°   | 3.5    | 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°    | 88.4   | 7.1       |
| 0°-40°    | 422.7  | 34.1      |
| 0°-60°    | 1186.2 | 95.6      |
| 0°-90°    | 1241.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1241.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 48   | 48  | 48  | 48   | 48   |      |
| 5°  | 51   | 50  | 47  | 43   | 42   | 5    |
| 15° | 79   | 48  | 34  | 30   | 31   | 28   |
| 25° | 871  | 62  | 19  | 22   | 25   | 536  |
| 35° | 4348 | 94  | 10  | 18   | 23   | 2609 |
| 45° | 4489 | 58  | 7   | 17   | 22   | 3403 |
| 55° | 2878 | 14  | 5   | 16   | 23   | 2449 |
| 65° | 250  | 0   | 5   | 15   | 21   | 452  |
| 75° | 2    | 1   | 4   | 10   | 18   | 2    |
| 85° | 0    | 1   | 4   | 4    | 8    | 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°    | 48.1   | 48.1   | 48.1   | 48.1   | 48.1   | 48.1   | 48.1 | 48.1  | 48.1 | 48.1   | 48.1 |
| 2.5°  | 49.1   | 49.1   | 50.2   | 50.2   | 49.1   | 50.2   | 50.2 | 50.2  | 48.1 | 47.0   | 45.0 |
| 5°    | 51.2   | 51.2   | 51.2   | 52.3   | 51.2   | 51.2   | 50.2 | 49.1  | 47.0 | 43.9   | 42.9 |
| 7.5°  | 53.3   | 53.3   | 52.3   | 53.3   | 52.3   | 52.3   | 50.2 | 48.1  | 45.0 | 41.8   | 39.7 |
| 10°   | 55.4   | 55.4   | 54.4   | 54.4   | 53.3   | 53.3   | 49.1 | 46.0  | 40.8 | 37.6   | 36.6 |
| 12.5° | 61.7   | 61.7   | 60.6   | 59.6   | 57.5   | 56.4   | 48.1 | 42.9  | 36.6 | 33.5   | 32.4 |
| 15°   | 79.4   | 78.4   | 76.3   | 73.2   | 67.9   | 66.9   | 48.1 | 39.7  | 33.5 | 30.3   | 30.3 |
| 17.5° | 108.7  | 107.7  | 104.5  | 96.2   | 86.8   | 83.6   | 48.1 | 35.5  | 29.3 | 27.2   | 27.2 |
| 20°   | 194.4  | 186.1  | 170.4  | 149.5  | 127.5  | 116.0  | 51.2 | 31.4  | 25.1 | 24.0   | 25.1 |
| 21°   | 254.0  | 245.7  | 225.8  | 191.3  | 152.6  | 140.1  | 53.3 | 30.3  | 24.0 | 23.0   | 25.1 |
| 22°   | 346.0  | 336.6  | 295.8  | 248.8  | 193.4  | 171.4  | 54.4 | 28.2  | 22.0 | 22.0   | 24.0 |
| 23°   | 483.0  | 467.3  | 398.3  | 323.0  | 241.5  | 210.1  | 56.4 | 27.2  | 20.9 | 22.0   | 23.0 |
| 24°   | 632.4  | 618.9  | 540.5  | 427.6  | 308.4  | 263.4  | 58.5 | 26.1  | 19.9 | 19.9   | 22.0 |
| 25°   | 870.8  | 855.1  | 716.1  | 539.4  | 391.0  | 316.7  | 61.7 | 24.0  | 18.8 | 18.8   | 22.0 |
| 26°   | 1179.2 | 1107.0 | 922.0  | 695.2  | 481.9  | 397.2  | 64.8 | 23.0  | 17.8 | 18.8   | 20.9 |
| 27°   | 1471.9 | 1412.3 | 1204.3 | 891.7  | 595.9  | 488.2  | 69.0 | 22.0  | 16.7 | 17.8   | 20.9 |
| 28°   | 1856.6 | 1772.9 | 1510.6 | 1127.9 | 750.6  | 590.6  | 73.2 | 20.9  | 15.7 | 17.8   | 19.9 |
| 29°   | 2287.3 | 2170.2 | 1853.4 | 1393.5 | 925.1  | 705.6  | 77.4 | 19.9  | 14.6 | 16.7   | 19.9 |
| 30°   | 2649.0 | 2539.2 | 2222.4 | 1708.1 | 1125.9 | 857.2  | 81.5 | 18.8  | 13.6 | 16.7   | 19.9 |
| 31°   | 3073.4 | 2907.2 | 2523.5 | 1974.7 | 1298.3 | 1008.8 | 85.7 | 16.7  | 12.5 | 15.7   | 18.8 |
| 32°   | 3417.3 | 3301.3 | 2893.6 | 2275.8 | 1525.2 | 1176.0 | 88.9 | 15.7  | 12.5 | 15.7   | 18.8 |
| 33°   | 3749.7 | 3594.0 | 3199.9 | 2564.3 | 1730.1 | 1347.5 | 92.0 | 14.6  | 11.5 | 14.6   | 18.8 |
| 34°   | 4067.5 | 3924.3 | 3489.4 | 2797.4 | 1923.5 | 1510.6 | 94.1 | 12.5  | 11.5 | 14.6   | 17.8 |
| 35°   | 4347.7 | 4181.5 | 3744.5 | 3025.3 | 2122.1 | 1659.0 | 94.1 | 11.5  | 10.5 | 13.6   | 17.8 |
| 36°   | 4529.6 | 4410.4 | 3966.1 | 3250.0 | 2301.9 | 1800.1 | 94.1 | 10.5  | 9.4  | 13.6   | 16.7 |
| 37°   | 4685.3 | 4546.3 | 4143.8 | 3422.5 | 2434.7 | 1913.0 | 94.1 | 9.4   | 9.4  | 13.6   | 16.7 |
| 38°   | 4749.1 | 4629.9 | 4266.1 | 3575.2 | 2559.1 | 2028.0 | 93.0 | 8.4   | 8.4  | 12.5   | 16.7 |
| 39°   | 4774.2 | 4667.6 | 4358.1 | 3684.9 | 2651.0 | 2105.4 | 90.9 | 7.3   | 8.4  | 12.5   | 16.7 |
| 40°   | 4741.8 | 4661.3 | 4405.2 | 3756.0 | 2724.2 | 2161.8 | 87.8 | 6.3   | 7.3  | 12.5   | 16.7 |
| 42.5° | 4608.0 | 4554.7 | 4394.7 | 3827.1 | 2786.9 | 2203.6 | 76.3 | 4.2   | 7.3  | 11.5   | 16.7 |
| 45°   | 4488.8 | 4430.3 | 4289.1 | 3752.9 | 2705.4 | 2121.0 | 57.5 | 2.1   | 7.3  | 11.5   | 16.7 |
| 47.5° | 4257.8 | 4221.2 | 4110.4 | 3563.7 | 2526.6 | 1935.0 | 40.8 | 1.0   | 6.3  | 10.5   | 15.7 |
| 50°   | 3794.7 | 3760.2 | 3613.8 | 3094.3 | 2173.3 | 1636.0 | 29.3 | 1.0   | 5.2  | 10.5   | 15.7 |
| 52.5° | 3379.7 | 3343.1 | 3133.0 | 2572.6 | 1669.4 | 1199.0 | 18.8 | 1.0   | 5.2  | 10.5   | 15.7 |
| 55°   | 2877.9 | 2814.1 | 2538.1 | 1952.7 | 1183.4 | 803.9  | 13.6 | 1.0   | 5.2  | 9.4    | 15.7 |
| 57.5° | 2130.5 | 2037.4 | 1790.7 | 1331.8 | 681.6  | 435.9  | 7.3  | 1.0   | 5.2  | 9.4    | 15.7 |
| 60°   | 1448.9 | 1393.5 | 1120.6 | 702.5  | 290.6  | 184.0  | 3.1  | 1.0   | 5.2  | 9.4    | 14.6 |
| 62.5° | 878.1  | 808.1  | 563.5  | 299.0  | 125.4  | 83.6   | 0.0  | 2.1   | 5.2  | 9.4    | 14.6 |
| 65°   | 249.8  | 221.6  | 147.4  | 67.9   | 35.5   | 27.2   | 0.0  | 2.1   | 5.2  | 9.4    | 14.6 |
| 67.5° | 8.4    | 8.4    | 8.4    | 7.3    | 5.2    | 5.2    | 1.0  | 2.1   | 5.2  | 9.4    | 13.6 |
| 70°   | 3.1    | 3.1    | 3.1    | 2.1    | 2.1    | 1.0    | 1.0  | 2.1   | 5.2  | 8.4    | 13.6 |
| 72.5° | 2.1    | 2.1    | 2.1    | 2.1    | 1.0    | 1.0    | 1.0  | 2.1   | 4.2  | 7.3    | 12.5 |
| 75°   | 2.1    | 2.1    | 2.1    | 1.0    | 1.0    | 1.0    | 1.0  | 3.1   | 4.2  | 7.3    | 10.5 |
| 77.5° | 2.1    | 2.1    | 2.1    | 1.0    | 1.0    | 1.0    | 1.0  | 3.1   | 4.2  | 6.3    | 10.5 |
| 80°   | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0    | 1.0  | 3.1   | 4.2  | 6.3    | 8.4  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° |
|-------|-----|-----|-----|-----|-----|-------|-----|-------|-----|--------|------|
| 82.5° | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0   | 1.0 | 3.1   | 4.2 | 4.2    | 6.3  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.0 | 3.1   | 4.2 | 3.1    | 4.2  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.0 | 3.1   | 3.1 | 3.1    | 2.1  |
| 90°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  |

TEST NUMBER: P1310241

CATALOG NUMBER: P3SQAS13R309040DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 0°    | 48.1   | 48.1 |
| 2.5°  | 45.0   | 45.0 |
| 5°    | 41.8   | 41.8 |
| 7.5°  | 38.7   | 38.7 |
| 10°   | 35.5   | 35.5 |
| 12.5° | 33.5   | 33.5 |
| 15°   | 30.3   | 31.4 |
| 17.5° | 28.2   | 29.3 |
| 20°   | 27.2   | 28.2 |
| 21°   | 27.2   | 28.2 |
| 22°   | 26.1   | 27.2 |
| 23°   | 26.1   | 27.2 |
| 24°   | 25.1   | 26.1 |
| 25°   | 24.0   | 25.1 |
| 26°   | 24.0   | 25.1 |
| 27°   | 24.0   | 25.1 |
| 28°   | 23.0   | 25.1 |
| 29°   | 23.0   | 24.0 |
| 30°   | 23.0   | 24.0 |
| 31°   | 22.0   | 24.0 |
| 32°   | 22.0   | 24.0 |
| 33°   | 22.0   | 23.0 |
| 34°   | 20.9   | 23.0 |
| 35°   | 20.9   | 23.0 |
| 36°   | 20.9   | 23.0 |
| 37°   | 20.9   | 22.0 |
| 38°   | 20.9   | 23.0 |
| 39°   | 20.9   | 22.0 |
| 40°   | 20.9   | 22.0 |
| 42.5° | 20.9   | 22.0 |
| 45°   | 20.9   | 22.0 |
| 47.5° | 20.9   | 23.0 |
| 50°   | 20.9   | 23.0 |
| 52.5° | 20.9   | 23.0 |
| 55°   | 20.9   | 23.0 |
| 57.5° | 20.9   | 22.0 |
| 60°   | 20.9   | 22.0 |
| 62.5° | 19.9   | 22.0 |
| 65°   | 19.9   | 20.9 |
| 67.5° | 19.9   | 20.9 |
| 70°   | 18.8   | 19.9 |
| 72.5° | 17.8   | 18.8 |
| 75°   | 15.7   | 17.8 |
| 77.5° | 14.6   | 15.7 |
| 80°   | 12.5   | 13.6 |





TEST NUMBER: P1310241

CATALOG NUMBER: P3SQAS13R309040DE010 E3SQCA451MB

**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 10.5   | 10.5 |
| 85°   | 7.3    | 8.4  |
| 87.5° | 4.2    | 4.2  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)