

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: PORTFOLIO

Report Number: P1320396

Luminaire Tested: LDSQA3D20R309840D010 3LSQCA45R 1MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1320396  
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: PORTFOLIO  
Catalog Number: LDSQA3D20R309840D010 3LSQCA45R 1MMS  
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 98CRI , 3LSQCA45R 1MMS TRII  
Light Source: -  
Ballast/Driver: -

**Summary**

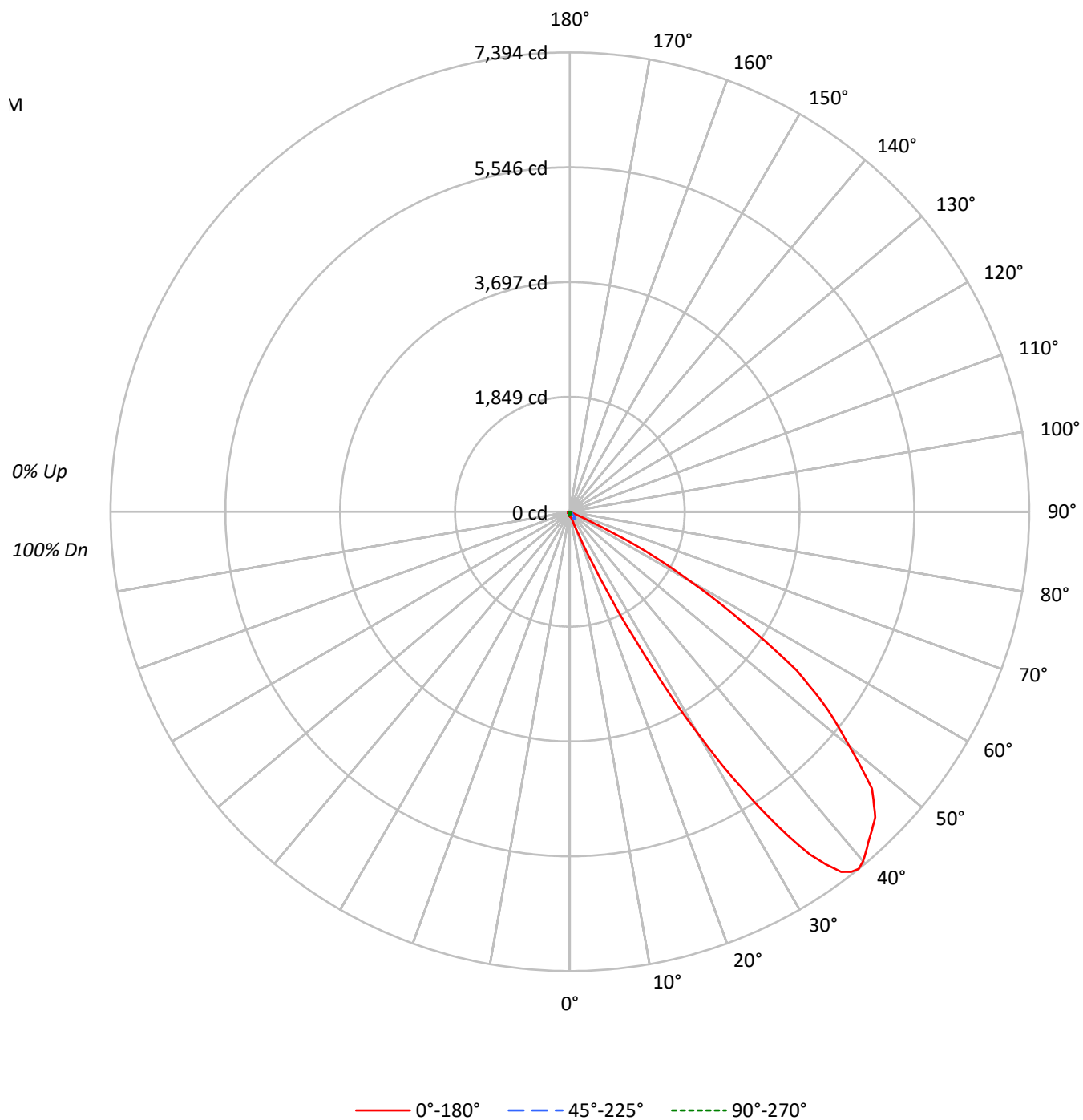
Lumens per Lamp: N/A  
Luminaire Lumens: 1922.0 lumens  
Efficiency: N/A  
Efficacy: 70.1 lumens/watt  
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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  |     |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 | 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°  | 12831   | 12831 | 12831 | 12831 | 12831 |
| 5°  | 13709   | 13433 | 12603 | 11479 | 11203 |
| 10° | 15005   | 13308 | 11035 | 9916  | 9618  |
| 15° | 21931   | 13283 | 9236  | 8380  | 8665  |
| 20° | 55184   | 14534 | 7129  | 7129  | 8009  |
| 25° | 256270  | 18148 | 5530  | 6461  | 7392  |
| 30° | 815866  | 25117 | 4176  | 6125  | 7398  |
| 35° | 1415685 | 30633 | 3406  | 5782  | 7485  |
| 40° | 1651038 | 30576 | 2540  | 5823  | 7644  |
| 45° | 1693226 | 21677 | 2752  | 6308  | 8281  |
| 50° | 1574630 | 12137 | 2170  | 6511  | 9538  |
| 55° | 1338293 | 6305  | 2432  | 7296  | 10689 |
| 60° | 772935  | 1688  | 2790  | 7819  | 11711 |
| 65° | 157667  | 0     | 3301  | 9251  | 13203 |
| 70° | 2467    | 806   | 4079  | 10574 | 15509 |
| 75° | 2129    | 1065  | 4325  | 10780 | 18299 |
| 80° | 1587    | 1587  | 6447  | 12893 | 20828 |
| 85° | 0       | 3162  | 12844 | 12844 | 25688 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1693226 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.7    | 0.4       |
| 10°-20°   | 19.4   | 1.0       |
| 20°-30°   | 110.8  | 5.8       |
| 30°-40°   | 517.7  | 26.9      |
| 40°-50°   | 732.1  | 38.1      |
| 50°-60°   | 450.4  | 23.4      |
| 60°-70°   | 68.6   | 3.6       |
| 70°-80°   | 10.9   | 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°    | 137.0  | 7.1       |
| 0°-40°    | 654.6  | 34.1      |
| 0°-60°    | 1837.1 | 95.6      |
| 0°-90°    | 1922.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1922.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 74   | 74  | 74  | 74   | 74   |      |
| 5°  | 79   | 78  | 73  | 66   | 65   | 8    |
| 15° | 123  | 74  | 52  | 47   | 49   | 44   |
| 25° | 1349 | 96  | 29  | 34   | 39   | 830  |
| 35° | 6734 | 146 | 16  | 28   | 36   | 4041 |
| 45° | 6952 | 89  | 11  | 26   | 34   | 5270 |
| 55° | 4457 | 21  | 8   | 24   | 36   | 3793 |
| 65° | 387  | 0   | 8   | 23   | 32   | 700  |
| 75° | 3    | 2   | 6   | 16   | 28   | 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°    | 74.5   | 74.5   | 74.5   | 74.5   | 74.5   | 74.5   | 74.5  | 74.5  | 74.5 | 74.5   | 74.5 |
| 2.5°  | 76.1   | 76.1   | 77.7   | 77.7   | 76.1   | 77.7   | 77.7  | 77.7  | 74.5 | 72.9   | 69.6 |
| 5°    | 79.3   | 79.3   | 79.3   | 81.0   | 79.3   | 79.3   | 77.7  | 76.1  | 72.9 | 68.0   | 66.4 |
| 7.5°  | 82.6   | 82.6   | 81.0   | 82.6   | 81.0   | 81.0   | 77.7  | 74.5  | 69.6 | 64.8   | 61.5 |
| 10°   | 85.8   | 85.8   | 84.2   | 84.2   | 82.6   | 82.6   | 76.1  | 71.2  | 63.1 | 58.3   | 56.7 |
| 12.5° | 95.5   | 95.5   | 93.9   | 92.3   | 89.0   | 87.4   | 74.5  | 66.4  | 56.7 | 51.8   | 50.2 |
| 15°   | 123.0  | 121.4  | 118.2  | 113.3  | 105.2  | 103.6  | 74.5  | 61.5  | 51.8 | 47.0   | 47.0 |
| 17.5° | 168.4  | 166.8  | 161.9  | 148.9  | 134.4  | 129.5  | 74.5  | 55.0  | 45.3 | 42.1   | 42.1 |
| 20°   | 301.1  | 288.2  | 263.9  | 231.5  | 197.5  | 179.7  | 79.3  | 48.6  | 38.9 | 37.2   | 38.9 |
| 21°   | 393.4  | 380.5  | 349.7  | 296.3  | 236.4  | 216.9  | 82.6  | 47.0  | 37.2 | 35.6   | 38.9 |
| 22°   | 535.9  | 521.3  | 458.2  | 385.3  | 299.5  | 265.5  | 84.2  | 43.7  | 34.0 | 34.0   | 37.2 |
| 23°   | 748.0  | 723.7  | 616.8  | 500.3  | 374.0  | 325.4  | 87.4  | 42.1  | 32.4 | 34.0   | 35.6 |
| 24°   | 979.5  | 958.5  | 837.0  | 662.2  | 477.6  | 408.0  | 90.7  | 40.5  | 30.8 | 30.8   | 34.0 |
| 25°   | 1348.6 | 1324.4 | 1109.0 | 835.4  | 605.5  | 490.6  | 95.5  | 37.2  | 29.1 | 29.1   | 34.0 |
| 26°   | 1826.2 | 1714.5 | 1428.0 | 1076.6 | 746.4  | 615.2  | 100.4 | 35.6  | 27.5 | 29.1   | 32.4 |
| 27°   | 2279.6 | 2187.3 | 1865.1 | 1381.0 | 922.8  | 756.1  | 106.9 | 34.0  | 25.9 | 27.5   | 32.4 |
| 28°   | 2875.4 | 2745.8 | 2339.5 | 1746.9 | 1162.5 | 914.7  | 113.3 | 32.4  | 24.3 | 27.5   | 30.8 |
| 29°   | 3542.4 | 3361.1 | 2870.5 | 2158.1 | 1432.8 | 1092.8 | 119.8 | 30.8  | 22.7 | 25.9   | 30.8 |
| 30°   | 4102.6 | 3932.6 | 3442.0 | 2645.5 | 1743.7 | 1327.6 | 126.3 | 29.1  | 21.0 | 25.9   | 30.8 |
| 31°   | 4759.9 | 4502.5 | 3908.3 | 3058.3 | 2010.8 | 1562.3 | 132.8 | 25.9  | 19.4 | 24.3   | 29.1 |
| 32°   | 5292.5 | 5112.8 | 4481.4 | 3524.6 | 2362.1 | 1821.4 | 137.6 | 24.3  | 19.4 | 24.3   | 29.1 |
| 33°   | 5807.4 | 5566.2 | 4955.8 | 3971.4 | 2679.5 | 2086.9 | 142.5 | 22.7  | 17.8 | 22.7   | 29.1 |
| 34°   | 6299.6 | 6077.8 | 5404.3 | 4332.5 | 2979.0 | 2339.5 | 145.7 | 19.4  | 17.8 | 22.7   | 27.5 |
| 35°   | 6733.5 | 6476.0 | 5799.3 | 4685.4 | 3286.6 | 2569.4 | 145.7 | 17.8  | 16.2 | 21.0   | 27.5 |
| 36°   | 7015.2 | 6830.6 | 6142.5 | 5033.5 | 3565.1 | 2787.9 | 145.7 | 16.2  | 14.6 | 21.0   | 25.9 |
| 37°   | 7256.4 | 7041.1 | 6417.8 | 5300.6 | 3770.7 | 2962.8 | 145.7 | 14.6  | 14.6 | 21.0   | 25.9 |
| 38°   | 7355.2 | 7170.6 | 6607.2 | 5537.0 | 3963.3 | 3140.9 | 144.1 | 13.0  | 13.0 | 19.4   | 25.9 |
| 39°   | 7394.0 | 7228.9 | 6749.7 | 5707.0 | 4105.8 | 3260.7 | 140.9 | 11.3  | 13.0 | 19.4   | 25.9 |
| 40°   | 7343.8 | 7219.2 | 6822.5 | 5817.1 | 4219.1 | 3348.1 | 136.0 | 9.7   | 11.3 | 19.4   | 25.9 |
| 42.5° | 7136.6 | 7054.0 | 6806.3 | 5927.2 | 4316.3 | 3412.9 | 118.2 | 6.5   | 11.3 | 17.8   | 25.9 |
| 45°   | 6952.0 | 6861.4 | 6642.8 | 5812.3 | 4190.0 | 3285.0 | 89.0  | 3.2   | 11.3 | 17.8   | 25.9 |
| 47.5° | 6594.2 | 6537.6 | 6366.0 | 5519.2 | 3913.2 | 2996.8 | 63.1  | 1.6   | 9.7  | 16.2   | 24.3 |
| 50°   | 5877.0 | 5823.6 | 5596.9 | 4792.3 | 3365.9 | 2533.8 | 45.3  | 1.6   | 8.1  | 16.2   | 24.3 |
| 52.5° | 5234.3 | 5177.6 | 4852.2 | 3984.4 | 2585.6 | 1857.0 | 29.1  | 1.6   | 8.1  | 16.2   | 24.3 |
| 55°   | 4457.1 | 4358.4 | 3931.0 | 3024.3 | 1832.7 | 1245.0 | 21.0  | 1.6   | 8.1  | 14.6   | 24.3 |
| 57.5° | 3299.5 | 3155.5 | 2773.4 | 2062.6 | 1055.6 | 675.1  | 11.3  | 1.6   | 8.1  | 14.6   | 24.3 |
| 60°   | 2244.0 | 2158.1 | 1735.6 | 1088.0 | 450.1  | 284.9  | 4.9   | 1.6   | 8.1  | 14.6   | 22.7 |
| 62.5° | 1360.0 | 1251.5 | 872.6  | 463.0  | 194.3  | 129.5  | 0.0   | 3.2   | 8.1  | 14.6   | 22.7 |
| 65°   | 386.9  | 343.2  | 228.3  | 105.2  | 55.0   | 42.1   | 0.0   | 3.2   | 8.1  | 14.6   | 22.7 |
| 67.5° | 13.0   | 13.0   | 13.0   | 11.3   | 8.1    | 8.1    | 1.6   | 3.2   | 8.1  | 14.6   | 21.0 |
| 70°   | 4.9    | 4.9    | 4.9    | 3.2    | 3.2    | 1.6    | 1.6   | 3.2   | 8.1  | 13.0   | 21.0 |
| 72.5° | 3.2    | 3.2    | 3.2    | 3.2    | 1.6    | 1.6    | 1.6   | 3.2   | 6.5  | 11.3   | 19.4 |
| 75°   | 3.2    | 3.2    | 3.2    | 1.6    | 1.6    | 1.6    | 1.6   | 4.9   | 6.5  | 11.3   | 16.2 |
| 77.5° | 3.2    | 3.2    | 3.2    | 1.6    | 1.6    | 1.6    | 1.6   | 4.9   | 6.5  | 9.7    | 16.2 |
| 80°   | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6   | 4.9   | 6.5  | 9.7    | 13.0 |



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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 | 4.9   | 6.5 | 6.5    | 9.7  |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.6 | 4.9   | 6.5 | 4.9    | 6.5  |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 1.6 | 4.9   | 4.9 | 4.9    | 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°    | 74.5   | 74.5 |
| 2.5°  | 69.6   | 69.6 |
| 5°    | 64.8   | 64.8 |
| 7.5°  | 59.9   | 59.9 |
| 10°   | 55.0   | 55.0 |
| 12.5° | 51.8   | 51.8 |
| 15°   | 47.0   | 48.6 |
| 17.5° | 43.7   | 45.3 |
| 20°   | 42.1   | 43.7 |
| 21°   | 42.1   | 43.7 |
| 22°   | 40.5   | 42.1 |
| 23°   | 40.5   | 42.1 |
| 24°   | 38.9   | 40.5 |
| 25°   | 37.2   | 38.9 |
| 26°   | 37.2   | 38.9 |
| 27°   | 37.2   | 38.9 |
| 28°   | 35.6   | 38.9 |
| 29°   | 35.6   | 37.2 |
| 30°   | 35.6   | 37.2 |
| 31°   | 34.0   | 37.2 |
| 32°   | 34.0   | 37.2 |
| 33°   | 34.0   | 35.6 |
| 34°   | 32.4   | 35.6 |
| 35°   | 32.4   | 35.6 |
| 36°   | 32.4   | 35.6 |
| 37°   | 32.4   | 34.0 |
| 38°   | 32.4   | 35.6 |
| 39°   | 32.4   | 34.0 |
| 40°   | 32.4   | 34.0 |
| 42.5° | 32.4   | 34.0 |
| 45°   | 32.4   | 34.0 |
| 47.5° | 32.4   | 35.6 |
| 50°   | 32.4   | 35.6 |
| 52.5° | 32.4   | 35.6 |
| 55°   | 32.4   | 35.6 |
| 57.5° | 32.4   | 34.0 |
| 60°   | 32.4   | 34.0 |
| 62.5° | 30.8   | 34.0 |
| 65°   | 30.8   | 32.4 |
| 67.5° | 30.8   | 32.4 |
| 70°   | 29.1   | 30.8 |
| 72.5° | 27.5   | 29.1 |
| 75°   | 24.3   | 27.5 |
| 77.5° | 22.7   | 24.3 |
| 80°   | 19.4   | 21.0 |



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**CANDELA DISTRIBUTION (continued):**

|       | 157.5° | 180° |
|-------|--------|------|
| 82.5° | 16.2   | 16.2 |
| 85°   | 11.3   | 13.0 |
| 87.5° | 6.5    | 6.5  |
| 90°   | 0.0    | 0.0  |

(END OF REPORT)