

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: P1326765

Luminaire Tested: LDSQA3D09R45W2N902750DE010 3LSQCA45R 1MB\_4000K

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1326765  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: PORTFOLIO  
Catalog Number: LDSQA3D09R45W2N902750DE010 3LSQCA45R 1MB\_4000K  
Description: 3in Adjustable Tunable White LED luminaire with, R45 optic, 4000K CCT AND, 90CRI ,  
3LSQCA45R 1MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

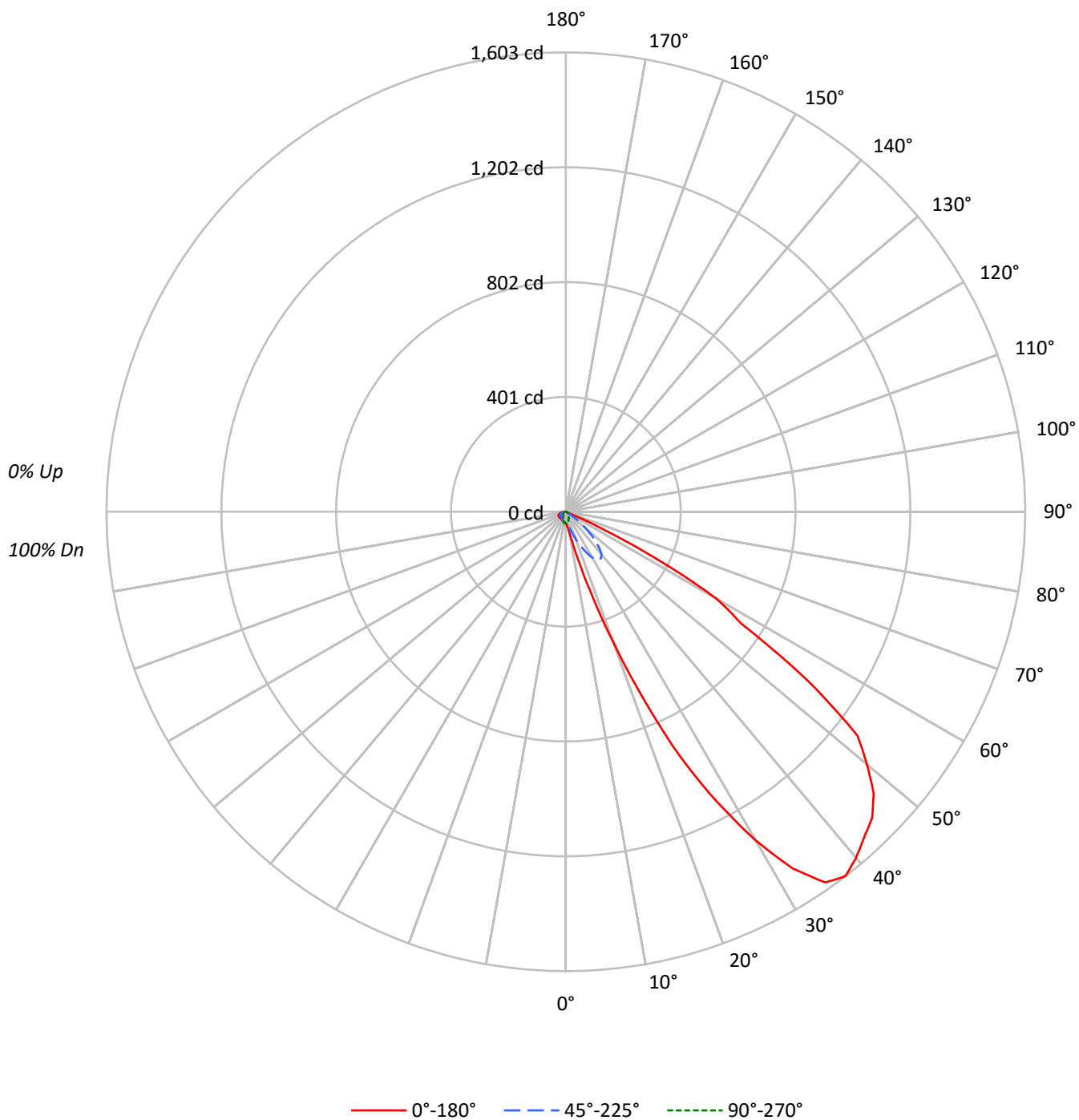
Lumens per Lamp: N/A  
Luminaire Lumens: 716.0 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 9  
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  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 66  | 77  | 70  | 65  | 74  | 69  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  |
| 5   | 76  | 63  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 52  | 46  | 57  | 51  | 45  | 55  | 50  | 45  |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 46  | 39  | 52  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 33  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 37  | 33  |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 42  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  |
| 9   | 53  | 39  | 31  | 25  | 52  | 39  | 30  | 25  | 38  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 24  |
| 10  | 49  | 36  | 27  | 22  | 48  | 35  | 27  | 22  | 34  | 27  | 21  | 33  | 26  | 21  | 32  | 26  | 21  |

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

|     | 0°     | 45°   | 90°  | 135°  | 180°  |
|-----|--------|-------|------|-------|-------|
| 0°  | 7130   | 7130  | 7130 | 7130  | 7130  |
| 5°  | 8488   | 7883  | 7054 | 6552  | 6552  |
| 10° | 13553  | 9216  | 6628 | 6208  | 6208  |
| 15° | 33752  | 12338 | 6009 | 5795  | 6009  |
| 20° | 88907  | 18438 | 5205 | 5535  | 5846  |
| 25° | 178530 | 27326 | 4504 | 5169  | 5739  |
| 30° | 263179 | 36591 | 3639 | 5051  | 5886  |
| 35° | 331977 | 42911 | 3112 | 4983  | 6097  |
| 40° | 354205 | 43368 | 2788 | 5193  | 6520  |
| 45° | 368019 | 36169 | 2582 | 5626  | 7063  |
| 50° | 367440 | 25212 | 2545 | 6028  | 7931  |
| 55° | 312301 | 11200 | 2672 | 6756  | 8708  |
| 60° | 209905 | 2239  | 2652 | 7543  | 9989  |
| 65° | 55707  | 978   | 2649 | 8191  | 11329 |
| 70° | 1511   | 1209  | 2669 | 8913  | 12790 |
| 75° | 1198   | 1198  | 2728 | 9449  | 14573 |
| 80° | 1190   | 1785  | 2975 | 10017 | 16464 |
| 85° | 1186   | 2371  | 4742 | 10473 | 16401 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 377488 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 4.1    | 0.6       |
| 10°-20°   | 20.2   | 2.8       |
| 20°-30°   | 83.3   | 11.6      |
| 30°-40°   | 175.5  | 24.5      |
| 40°-50°   | 216.6  | 30.2      |
| 50°-60°   | 162.3  | 22.7      |
| 60°-70°   | 41.8   | 5.8       |
| 70°-80°   | 8.7    | 1.2       |
| 80°-90°   | 3.5    | 0.5       |
| 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°    | 107.6  | 15.0      |
| 0°-40°    | 283.2  | 39.5      |
| 0°-60°    | 662.1  | 92.5      |
| 0°-90°    | 716.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 716.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 41   | 41  | 41  | 41   | 41   |      |
| 5°  | 49   | 46  | 41  | 38   | 38   | 6    |
| 15° | 189  | 69  | 34  | 32   | 34   | 69   |
| 25° | 940  | 144 | 24  | 27   | 30   | 438  |
| 35° | 1579 | 204 | 15  | 24   | 29   | 962  |
| 45° | 1511 | 148 | 11  | 23   | 29   | 1156 |
| 55° | 1040 | 37  | 9   | 22   | 29   | 898  |
| 65° | 137  | 2   | 6   | 20   | 28   | 197  |
| 75° | 2    | 2   | 4   | 14   | 22   | 2    |
| 85° | 1    | 1   | 2   | 5    | 8    | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 45°   | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|------|--------|
| 0°    | 41.4   | 41.4   | 41.4   | 41.4   | 41.4   | 41.4   | 41.4  | 41.4  | 41.4  | 41.4 | 41.4   |
| 2.5°  | 43.8   | 43.8   | 43.8   | 43.8   | 43.8   | 43.8   | 43.8  | 43.2  | 42.6  | 41.4 | 40.2   |
| 5°    | 49.1   | 48.5   | 48.5   | 48.5   | 47.9   | 47.3   | 47.3  | 45.6  | 43.2  | 40.8 | 39.0   |
| 7.5°  | 58.0   | 58.0   | 57.4   | 56.2   | 55.6   | 54.4   | 53.2  | 48.5  | 43.2  | 39.6 | 37.3   |
| 10°   | 77.5   | 76.3   | 74.5   | 73.4   | 70.4   | 66.3   | 63.3  | 52.7  | 42.6  | 37.9 | 36.1   |
| 12.5° | 116.0  | 118.3  | 112.4  | 106.5  | 98.2   | 90.5   | 81.1  | 59.8  | 42.6  | 36.1 | 34.3   |
| 15°   | 189.3  | 193.5  | 182.2  | 170.4  | 150.3  | 131.3  | 113.6 | 69.2  | 41.4  | 33.7 | 31.9   |
| 17.5° | 309.4  | 314.7  | 295.8  | 268.0  | 236.6  | 198.8  | 166.2 | 82.2  | 40.2  | 31.4 | 30.2   |
| 20°   | 485.1  | 484.5  | 447.9  | 412.9  | 352.6  | 297.0  | 236.1 | 100.6 | 38.5  | 28.4 | 28.4   |
| 22.5° | 701.1  | 703.4  | 658.5  | 595.8  | 510.0  | 420.6  | 323.6 | 121.9 | 36.1  | 26.0 | 26.6   |
| 25°   | 939.5  | 919.4  | 866.1  | 789.8  | 680.4  | 556.7  | 428.9 | 143.8 | 33.7  | 23.7 | 24.8   |
| 27.5° | 1138.3 | 1118.7 | 1057.8 | 967.3  | 849.6  | 702.8  | 536.0 | 165.7 | 30.8  | 21.3 | 23.1   |
| 30°   | 1323.4 | 1298.6 | 1225.2 | 1122.9 | 982.7  | 824.1  | 636.6 | 184.0 | 27.2  | 18.3 | 21.3   |
| 32.5° | 1476.1 | 1453.6 | 1370.2 | 1251.3 | 1098.6 | 928.2  | 721.8 | 198.2 | 23.7  | 16.6 | 20.1   |
| 35°   | 1579.0 | 1555.9 | 1479.0 | 1348.3 | 1182.0 | 1004.0 | 791.0 | 204.1 | 20.7  | 14.8 | 19.5   |
| 37.5° | 1602.7 | 1590.3 | 1535.2 | 1412.8 | 1239.4 | 1052.5 | 835.4 | 202.3 | 17.2  | 13.6 | 18.3   |
| 40°   | 1575.5 | 1578.4 | 1552.4 | 1450.6 | 1270.2 | 1073.2 | 853.7 | 192.9 | 14.2  | 12.4 | 17.7   |
| 42.5° | 1540.6 | 1548.3 | 1546.5 | 1466.0 | 1283.2 | 1074.4 | 846.0 | 173.9 | 11.2  | 11.2 | 17.2   |
| 45°   | 1511.0 | 1518.7 | 1529.3 | 1459.5 | 1274.3 | 1059.0 | 821.8 | 148.5 | 8.3   | 10.6 | 17.2   |
| 47.5° | 1457.1 | 1465.4 | 1480.8 | 1407.4 | 1229.4 | 1019.3 | 778.0 | 120.7 | 5.9   | 10.1 | 16.6   |
| 50°   | 1371.4 | 1375.5 | 1371.4 | 1289.1 | 1143.0 | 955.5  | 707.0 | 94.1  | 4.1   | 9.5  | 16.6   |
| 52.5° | 1283.2 | 1274.9 | 1240.6 | 1136.5 | 1005.7 | 854.3  | 617.6 | 66.9  | 3.0   | 8.9  | 16.0   |
| 55°   | 1040.1 | 1027.0 | 1001.6 | 937.7  | 863.2  | 730.1  | 499.3 | 37.3  | 3.0   | 8.9  | 15.4   |
| 57.5° | 724.7  | 731.8  | 740.7  | 727.7  | 693.4  | 575.0  | 379.2 | 16.6  | 3.0   | 8.3  | 15.4   |
| 60°   | 609.4  | 603.4  | 604.0  | 595.8  | 539.0  | 419.5  | 260.9 | 6.5   | 3.0   | 7.7  | 14.8   |
| 62.5° | 363.8  | 368.0  | 375.7  | 377.4  | 321.2  | 234.3  | 136.7 | 3.0   | 3.0   | 7.1  | 14.2   |
| 65°   | 136.7  | 143.2  | 125.4  | 108.9  | 86.4   | 63.3   | 31.9  | 2.4   | 3.5   | 6.5  | 13.0   |
| 67.5° | 4.1    | 4.7    | 5.9    | 5.3    | 5.3    | 4.7    | 3.5   | 2.4   | 3.5   | 5.9  | 12.4   |
| 70°   | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 2.4    | 2.4   | 2.4   | 3.0   | 5.3  | 11.2   |
| 72.5° | 2.4    | 2.4    | 2.4    | 2.4    | 2.4    | 2.4    | 2.4   | 2.4   | 3.0   | 4.7  | 10.1   |
| 75°   | 1.8    | 2.4    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8   | 1.8   | 3.0   | 4.1  | 8.3    |
| 77.5° | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8   | 1.8   | 2.4   | 3.5  | 7.1    |
| 80°   | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2   | 1.8   | 2.4   | 3.0  | 5.9    |
| 82.5° | 1.2    | 1.2    | 1.2    | 0.6    | 1.2    | 1.2    | 1.2   | 1.2   | 2.4   | 2.4  | 4.7    |
| 85°   | 0.6    | 0.6    | 0.6    | 0.6    | 0.6    | 0.6    | 0.6   | 1.2   | 1.8   | 2.4  | 3.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.6    | 0.6    | 0.6   | 1.2   | 1.8   | 1.8  | 1.8    |
| 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):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 41.4 | 41.4   | 41.4 |
| 2.5°  | 39.0 | 39.0   | 39.0 |
| 5°    | 37.9 | 37.9   | 37.9 |
| 7.5°  | 36.7 | 36.7   | 36.7 |
| 10°   | 35.5 | 35.5   | 35.5 |
| 12.5° | 34.3 | 34.3   | 34.9 |
| 15°   | 32.5 | 33.7   | 33.7 |
| 17.5° | 31.4 | 32.5   | 33.1 |
| 20°   | 30.2 | 31.4   | 31.9 |
| 22.5° | 28.4 | 30.2   | 31.4 |
| 25°   | 27.2 | 29.6   | 30.2 |
| 27.5° | 26.0 | 29.0   | 30.2 |
| 30°   | 25.4 | 28.4   | 29.6 |
| 32.5° | 24.3 | 27.8   | 29.0 |
| 35°   | 23.7 | 27.8   | 29.0 |
| 37.5° | 23.7 | 27.2   | 29.0 |
| 40°   | 23.1 | 27.2   | 29.0 |
| 42.5° | 23.1 | 27.2   | 29.0 |
| 45°   | 23.1 | 27.2   | 29.0 |
| 47.5° | 22.5 | 27.2   | 29.6 |
| 50°   | 22.5 | 27.8   | 29.6 |
| 52.5° | 22.5 | 27.8   | 29.6 |
| 55°   | 22.5 | 27.8   | 29.0 |
| 57.5° | 21.9 | 27.2   | 29.0 |
| 60°   | 21.9 | 27.2   | 29.0 |
| 62.5° | 20.7 | 26.6   | 28.4 |
| 65°   | 20.1 | 26.0   | 27.8 |
| 67.5° | 18.9 | 25.4   | 26.6 |
| 70°   | 17.7 | 23.7   | 25.4 |
| 72.5° | 16.0 | 22.5   | 24.3 |
| 75°   | 14.2 | 20.7   | 21.9 |
| 77.5° | 12.4 | 18.3   | 19.5 |
| 80°   | 10.1 | 15.4   | 16.6 |
| 82.5° | 7.7  | 11.8   | 12.4 |
| 85°   | 5.3  | 7.7    | 8.3  |
| 87.5° | 2.4  | 3.5    | 4.1  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)