

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: P1314688

Luminaire Tested: LDSQA3D13R459730DE010 3LSQCA45R 1MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1314688  
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: LDSQA3D13R459730DE010 3LSQCA45R 1MMS  
Description: 3in Adjustable LED luminaire with, R45 optic, 3000K CCT AND, 97CRI , 3LSQCA45R 1MMS TRII  
Light Source: -  
Ballast/Driver: -

**Summary**

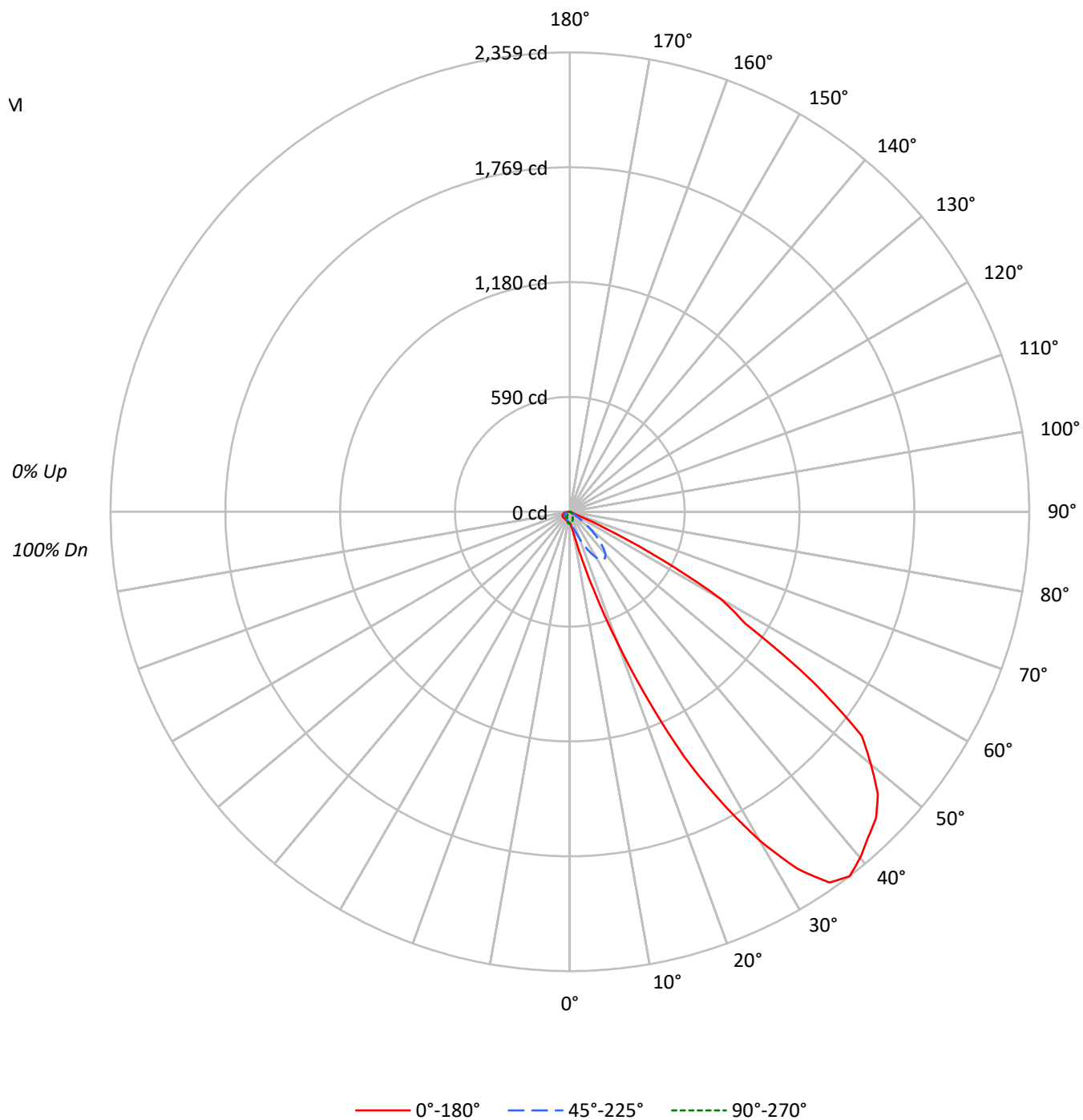
Lumens per Lamp: N/A  
Luminaire Lumens: 1054.0 lumens  
Efficiency: N/A  
Efficacy: 72.2 lumens/watt  
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 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  | 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°  | 10506  | 10506 | 10506 | 10506 | 10506 |
| 5°  | 12499  | 11600 | 10390 | 9629  | 9629  |
| 10° | 19954  | 13553 | 9741  | 9146  | 9146  |
| 15° | 49692  | 18169 | 8844  | 8540  | 8844  |
| 20° | 130877 | 27143 | 7661  | 8137  | 8614  |
| 25° | 262807 | 40210 | 6613  | 7620  | 8437  |
| 30° | 387430 | 53853 | 5369  | 7438  | 8651  |
| 35° | 488694 | 63179 | 4583  | 7317  | 8977  |
| 40° | 521404 | 63827 | 4114  | 7644  | 9600  |
| 45° | 541750 | 53242 | 3824  | 8281  | 10400 |
| 50° | 540872 | 37108 | 3724  | 8869  | 11655 |
| 55° | 459700 | 16484 | 3933  | 9939  | 12821 |
| 60° | 308967 | 3307  | 3892  | 11091 | 14708 |
| 65° | 81992  | 1426  | 3912  | 12062 | 16667 |
| 70° | 2216   | 1762  | 3928  | 13143 | 18833 |
| 75° | 1730   | 1730  | 4059  | 13907 | 21426 |
| 80° | 1686   | 2579  | 4364  | 14679 | 24200 |
| 85° | 1778   | 3359  | 6916  | 15413 | 24108 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 555678 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.1    | 0.6       |
| 10°-20°   | 29.7   | 2.8       |
| 20°-30°   | 122.6  | 11.6      |
| 30°-40°   | 258.4  | 24.5      |
| 40°-50°   | 318.8  | 30.2      |
| 50°-60°   | 239.0  | 22.7      |
| 60°-70°   | 61.5   | 5.8       |
| 70°-80°   | 12.7   | 1.2       |
| 80°-90°   | 5.2    | 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°    | 158.4  | 15.0      |
| 0°-40°    | 416.8  | 39.5      |
| 0°-60°    | 974.6  | 92.5      |
| 0°-90°    | 1054.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1054.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 61   | 61  | 61  | 61   | 61   |      |
| 5°  | 72   | 67  | 60  | 56   | 56   | 8    |
| 15° | 279  | 102 | 50  | 48   | 50   | 102  |
| 25° | 1383 | 212 | 35  | 40   | 44   | 644  |
| 35° | 2324 | 300 | 22  | 35   | 43   | 1417 |
| 45° | 2224 | 219 | 16  | 34   | 43   | 1702 |
| 55° | 1531 | 55  | 13  | 33   | 43   | 1322 |
| 65° | 201  | 4   | 10  | 30   | 41   | 290  |
| 75° | 3    | 3   | 6   | 21   | 32   | 3    |
| 85° | 1    | 2   | 4   | 8    | 12   | 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°    | 61.0   | 61.0   | 61.0   | 61.0   | 61.0   | 61.0   | 61.0   | 61.0  | 61.0  | 61.0 | 61.0   |
| 2.5°  | 64.4   | 64.4   | 64.4   | 64.4   | 64.4   | 64.4   | 64.4   | 63.6  | 62.7  | 61.0 | 59.2   |
| 5°    | 72.3   | 71.4   | 71.4   | 71.4   | 70.5   | 69.7   | 69.7   | 67.1  | 63.6  | 60.1 | 57.5   |
| 7.5°  | 85.3   | 85.3   | 84.5   | 82.7   | 81.9   | 80.1   | 78.4   | 71.4  | 63.6  | 58.3 | 54.9   |
| 10°   | 114.1  | 112.3  | 109.7  | 108.0  | 103.6  | 97.5   | 93.2   | 77.5  | 62.7  | 55.7 | 53.1   |
| 12.5° | 170.7  | 174.2  | 165.5  | 156.8  | 144.6  | 133.2  | 119.3  | 88.0  | 62.7  | 53.1 | 50.5   |
| 15°   | 278.7  | 284.8  | 268.2  | 250.8  | 221.2  | 193.3  | 167.2  | 101.9 | 61.0  | 49.6 | 47.0   |
| 17.5° | 455.5  | 463.3  | 435.4  | 394.5  | 348.4  | 292.6  | 244.7  | 121.1 | 59.2  | 46.2 | 44.4   |
| 20°   | 714.1  | 713.3  | 659.3  | 607.9  | 519.1  | 437.2  | 347.5  | 148.1 | 56.6  | 41.8 | 41.8   |
| 22.5° | 1032.0 | 1035.5 | 969.3  | 877.0  | 750.7  | 619.2  | 476.4  | 179.4 | 53.1  | 38.3 | 39.2   |
| 25°   | 1383.0 | 1353.4 | 1275.0 | 1162.6 | 1001.5 | 819.5  | 631.4  | 211.6 | 49.6  | 34.8 | 36.6   |
| 27.5° | 1675.6 | 1646.9 | 1557.2 | 1423.9 | 1250.6 | 1034.6 | 789.0  | 243.9 | 45.3  | 31.4 | 34.0   |
| 30°   | 1948.2 | 1911.6 | 1803.6 | 1653.0 | 1446.6 | 1213.2 | 937.1  | 270.8 | 40.1  | 27.0 | 31.4   |
| 32.5° | 2172.9 | 2139.8 | 2017.0 | 1841.9 | 1617.3 | 1366.4 | 1062.5 | 291.7 | 34.8  | 24.4 | 29.6   |
| 35°   | 2324.4 | 2290.5 | 2177.2 | 1984.8 | 1740.0 | 1477.9 | 1164.4 | 300.5 | 30.5  | 21.8 | 28.7   |
| 37.5° | 2359.3 | 2341.0 | 2260.0 | 2079.7 | 1824.5 | 1549.3 | 1229.7 | 297.8 | 25.3  | 20.0 | 27.0   |
| 40°   | 2319.2 | 2323.5 | 2285.2 | 2135.4 | 1869.8 | 1579.8 | 1256.7 | 283.9 | 20.9  | 18.3 | 26.1   |
| 42.5° | 2267.8 | 2279.1 | 2276.5 | 2158.1 | 1889.0 | 1581.5 | 1245.4 | 256.0 | 16.5  | 16.5 | 25.3   |
| 45°   | 2224.3 | 2235.6 | 2251.3 | 2148.5 | 1875.9 | 1558.9 | 1209.7 | 218.6 | 12.2  | 15.7 | 25.3   |
| 47.5° | 2145.0 | 2157.2 | 2179.8 | 2071.9 | 1809.7 | 1500.6 | 1145.2 | 177.7 | 8.7   | 14.8 | 24.4   |
| 50°   | 2018.7 | 2024.8 | 2018.7 | 1897.7 | 1682.6 | 1406.5 | 1040.7 | 138.5 | 6.1   | 13.9 | 24.4   |
| 52.5° | 1889.0 | 1876.8 | 1826.3 | 1673.0 | 1480.5 | 1257.6 | 909.2  | 98.4  | 4.4   | 13.1 | 23.5   |
| 55°   | 1531.0 | 1511.9 | 1474.4 | 1380.4 | 1270.6 | 1074.7 | 735.0  | 54.9  | 4.4   | 13.1 | 22.6   |
| 57.5° | 1066.8 | 1077.3 | 1090.4 | 1071.2 | 1020.7 | 846.5  | 558.2  | 24.4  | 4.4   | 12.2 | 22.6   |
| 60°   | 897.0  | 888.3  | 889.2  | 877.0  | 793.4  | 617.5  | 384.1  | 9.6   | 4.4   | 11.3 | 21.8   |
| 62.5° | 535.6  | 541.7  | 553.0  | 555.6  | 472.9  | 344.9  | 201.2  | 4.4   | 4.4   | 10.5 | 20.9   |
| 65°   | 201.2  | 210.8  | 184.6  | 160.2  | 127.2  | 93.2   | 47.0   | 3.5   | 5.2   | 9.6  | 19.2   |
| 67.5° | 6.1    | 7.0    | 8.7    | 7.8    | 7.8    | 7.0    | 5.2    | 3.5   | 5.2   | 8.7  | 18.3   |
| 70°   | 4.4    | 4.4    | 4.4    | 4.4    | 4.4    | 3.5    | 3.5    | 3.5   | 4.4   | 7.8  | 16.5   |
| 72.5° | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 3.5   | 4.4   | 7.0  | 14.8   |
| 75°   | 2.6    | 3.5    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6   | 4.4   | 6.1  | 12.2   |
| 77.5° | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6   | 3.5   | 5.2  | 10.5   |
| 80°   | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 2.6   | 3.5   | 4.4  | 8.7    |
| 82.5° | 1.7    | 1.7    | 1.7    | 0.9    | 1.7    | 1.7    | 1.7    | 1.7   | 3.5   | 3.5  | 7.0    |
| 85°   | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 1.7   | 2.6   | 3.5  | 4.4    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.9    | 0.9    | 0.9    | 1.7   | 2.6   | 2.6  | 2.6    |
| 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°    | 61.0 | 61.0   | 61.0 |
| 2.5°  | 57.5 | 57.5   | 57.5 |
| 5°    | 55.7 | 55.7   | 55.7 |
| 7.5°  | 54.0 | 54.0   | 54.0 |
| 10°   | 52.3 | 52.3   | 52.3 |
| 12.5° | 50.5 | 50.5   | 51.4 |
| 15°   | 47.9 | 49.6   | 49.6 |
| 17.5° | 46.2 | 47.9   | 48.8 |
| 20°   | 44.4 | 46.2   | 47.0 |
| 22.5° | 41.8 | 44.4   | 46.2 |
| 25°   | 40.1 | 43.5   | 44.4 |
| 27.5° | 38.3 | 42.7   | 44.4 |
| 30°   | 37.4 | 41.8   | 43.5 |
| 32.5° | 35.7 | 40.9   | 42.7 |
| 35°   | 34.8 | 40.9   | 42.7 |
| 37.5° | 34.8 | 40.1   | 42.7 |
| 40°   | 34.0 | 40.1   | 42.7 |
| 42.5° | 34.0 | 40.1   | 42.7 |
| 45°   | 34.0 | 40.1   | 42.7 |
| 47.5° | 33.1 | 40.1   | 43.5 |
| 50°   | 33.1 | 40.9   | 43.5 |
| 52.5° | 33.1 | 40.9   | 43.5 |
| 55°   | 33.1 | 40.9   | 42.7 |
| 57.5° | 32.2 | 40.1   | 42.7 |
| 60°   | 32.2 | 40.1   | 42.7 |
| 62.5° | 30.5 | 39.2   | 41.8 |
| 65°   | 29.6 | 38.3   | 40.9 |
| 67.5° | 27.9 | 37.4   | 39.2 |
| 70°   | 26.1 | 34.8   | 37.4 |
| 72.5° | 23.5 | 33.1   | 35.7 |
| 75°   | 20.9 | 30.5   | 32.2 |
| 77.5° | 18.3 | 27.0   | 28.7 |
| 80°   | 14.8 | 22.6   | 24.4 |
| 82.5° | 11.3 | 17.4   | 18.3 |
| 85°   | 7.8  | 11.3   | 12.2 |
| 87.5° | 3.5  | 5.2    | 6.1  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)