

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: METALUX

Report Number: P1586728

Luminaire Tested: 22CZSP-A-52-L945-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586728  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CZSP-A-52-L945-S  
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 5000 lumens, 90CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

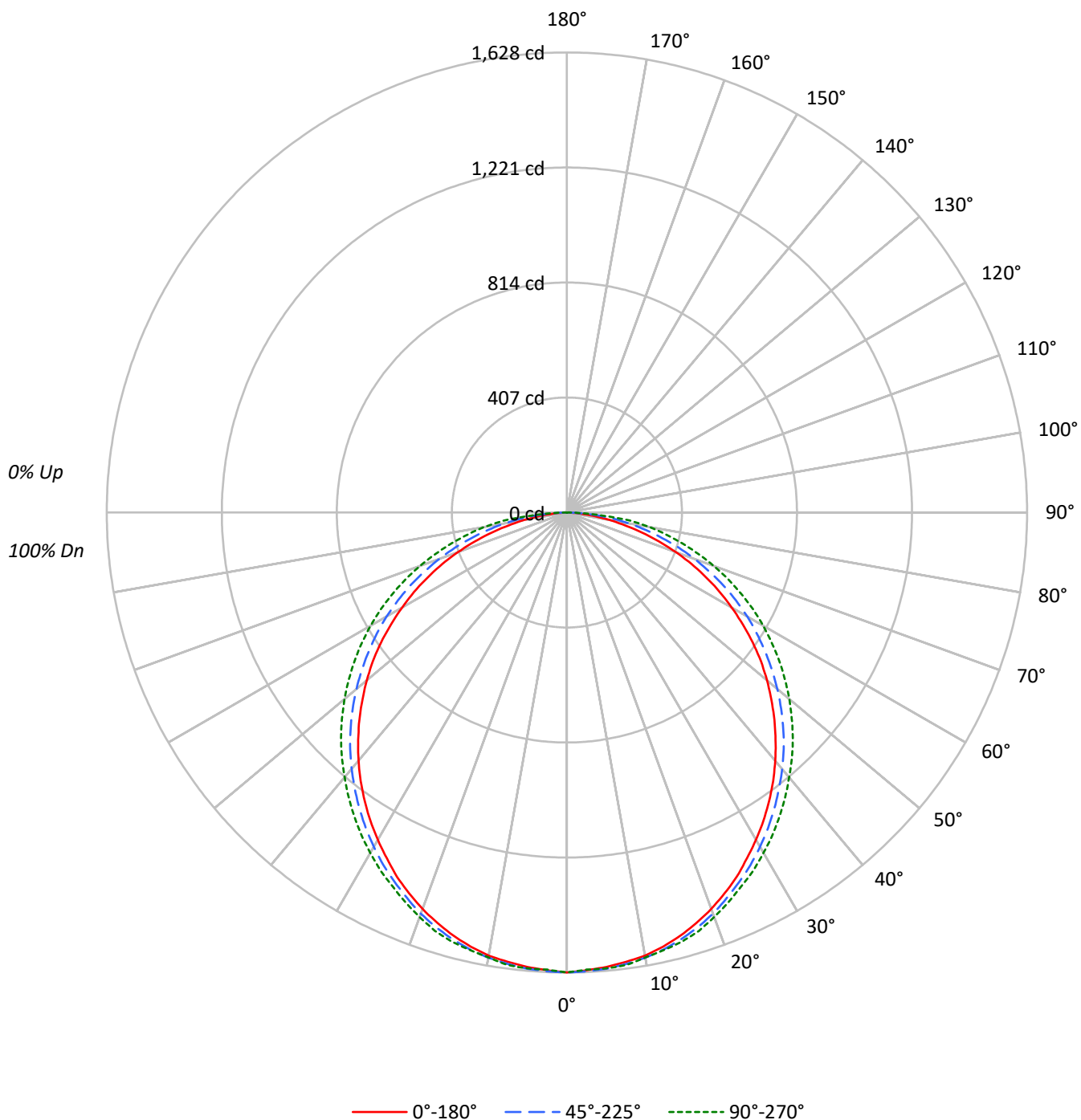
Lumens per Lamp: N/A  
Luminaire Lumens: 4752.0 lumens  
Efficiency: N/A  
Efficacy: 127.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 37.2  
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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 93  | 97  | 93  | 90  |  | 93  | 90  | 88  |  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  |  | 81  | 76  | 72  |  | 78  | 74  | 71  | 69  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 65  | 61  |  | 69  | 64  | 60  | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  |  | 63  | 57  | 52  |  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  |  | 57  | 50  | 45  |  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  |  | 51  | 44  | 39  |  | 50  | 44  | 39  | 37  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  |  | 47  | 40  | 35  |  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  |  | 37  | 30  | 25  |  | 36  | 30  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5097 | 5097 | 5097 |
| 5°  | 5074 | 5093 | 5090 |
| 10° | 5063 | 5086 | 5083 |
| 15° | 5026 | 5067 | 5097 |
| 20° | 4976 | 5035 | 5076 |
| 25° | 4914 | 4983 | 5044 |
| 30° | 4837 | 4939 | 5030 |
| 35° | 4767 | 4891 | 5014 |
| 40° | 4689 | 4842 | 5000 |
| 45° | 4599 | 4793 | 5005 |
| 50° | 4501 | 4734 | 5003 |
| 55° | 4383 | 4668 | 5009 |
| 60° | 4219 | 4617 | 5022 |
| 65° | 4025 | 4527 | 5038 |
| 70° | 3752 | 4401 | 5059 |
| 75° | 3343 | 4226 | 5109 |
| 80° | 2764 | 4023 | 5359 |
| 85° | 1800 | 3632 | 4681 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5527 cd/sqm

TEST NUMBER: P1586728

CATALOG NUMBER: 22CZSP-A-52-L945-S

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 153.9  | 3.2       |
| 10°-20°   | 440.8  | 9.3       |
| 20°-30°   | 664.8  | 14.0      |
| 30°-40°   | 800.7  | 16.8      |
| 40°-50°   | 836.2  | 17.6      |
| 50°-60°   | 768.0  | 16.2      |
| 60°-70°   | 604.9  | 12.7      |
| 70°-80°   | 371.1  | 7.8       |
| 80°-90°   | 111.7  | 2.3       |
| 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°    | 1259.5 | 26.5      |
| 0°-40°    | 2060.2 | 43.4      |
| 0°-60°    | 3664.4 | 77.1      |
| 0°-90°    | 4752.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4752.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1628 | 1628  | 1628 | 1628  | 1628 |      |
| 5°  | 1614 | 1616  | 1620 | 1626  | 1619 | 153  |
| 15° | 1550 | 1554  | 1563 | 1572  | 1572 | 437  |
| 25° | 1422 | 1425  | 1442 | 1460  | 1460 | 655  |
| 35° | 1247 | 1253  | 1279 | 1306  | 1312 | 780  |
| 45° | 1038 | 1050  | 1082 | 1120  | 1130 | 801  |
| 55° | 803  | 818   | 855  | 903   | 918  | 717  |
| 65° | 543  | 562   | 611  | 662   | 680  | 537  |
| 75° | 276  | 298   | 349  | 405   | 422  | 293  |
| 85° | 50   | 69    | 101  | 128   | 130  | 65   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1586728

CATALOG NUMBER: 22CZSP-A-52-L945-S

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1627.7 | 1627.7 | 1627.7 | 1627.7 | 1627.7 |
| 2.5°  | 1621.4 | 1624.6 | 1625.6 | 1626.6 | 1619.3 |
| 5°    | 1614.1 | 1616.2 | 1620.4 | 1625.6 | 1619.3 |
| 7.5°  | 1603.7 | 1605.8 | 1611.0 | 1618.3 | 1615.2 |
| 10°   | 1592.2 | 1593.3 | 1599.5 | 1604.7 | 1598.5 |
| 12.5° | 1573.5 | 1576.6 | 1583.9 | 1588.1 | 1586.0 |
| 15°   | 1550.5 | 1553.7 | 1563.0 | 1572.4 | 1572.4 |
| 17.5° | 1523.4 | 1527.6 | 1539.1 | 1551.6 | 1552.6 |
| 20°   | 1493.2 | 1496.3 | 1510.9 | 1523.4 | 1523.4 |
| 22.5° | 1458.8 | 1462.9 | 1477.5 | 1491.1 | 1493.2 |
| 25°   | 1422.3 | 1425.4 | 1442.1 | 1459.8 | 1459.8 |
| 27.5° | 1379.5 | 1385.8 | 1406.6 | 1424.4 | 1428.5 |
| 30°   | 1337.8 | 1343.0 | 1366.0 | 1387.9 | 1391.0 |
| 32.5° | 1294.0 | 1300.3 | 1324.3 | 1348.2 | 1353.5 |
| 35°   | 1247.1 | 1253.4 | 1279.4 | 1305.5 | 1311.7 |
| 37.5° | 1198.1 | 1205.4 | 1232.5 | 1262.7 | 1269.0 |
| 40°   | 1147.0 | 1155.3 | 1184.5 | 1216.9 | 1223.1 |
| 42.5° | 1092.8 | 1104.2 | 1135.5 | 1168.9 | 1178.3 |
| 45°   | 1038.5 | 1050.0 | 1082.3 | 1119.9 | 1130.3 |
| 47.5° | 981.2  | 994.8  | 1028.1 | 1067.7 | 1079.2 |
| 50°   | 923.9  | 937.4  | 971.8  | 1014.6 | 1027.1 |
| 52.5° | 865.5  | 879.0  | 914.5  | 959.3  | 972.9  |
| 55°   | 802.9  | 817.5  | 855.0  | 903.0  | 917.6  |
| 57.5° | 738.2  | 757.0  | 796.6  | 845.6  | 860.2  |
| 60°   | 673.6  | 692.4  | 737.2  | 785.2  | 801.9  |
| 62.5° | 610.0  | 627.7  | 673.6  | 724.7  | 742.4  |
| 65°   | 543.3  | 562.0  | 611.0  | 662.1  | 679.9  |
| 67.5° | 477.6  | 496.3  | 545.3  | 598.5  | 617.3  |
| 70°   | 409.8  | 430.6  | 480.7  | 533.9  | 552.6  |
| 72.5° | 342.0  | 363.9  | 415.0  | 469.2  | 487.0  |
| 75°   | 276.3  | 298.2  | 349.3  | 404.6  | 422.3  |
| 77.5° | 211.7  | 235.7  | 285.7  | 342.0  | 358.7  |
| 80°   | 153.3  | 176.2  | 223.1  | 278.4  | 297.2  |
| 82.5° | 98.0   | 117.8  | 164.7  | 216.9  | 230.4  |
| 85°   | 50.1   | 68.8   | 101.1  | 128.3  | 130.3  |
| 87.5° | 15.6   | 21.9   | 33.4   | 50.1   | 51.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 17.14            | 18.80 | 17.50 | 19.11 | 19.43 | 17.97          | 19.63 | 18.33 | 19.94 | 20.26 |
|                 | 3H   | 18.89            | 20.40 | 19.27 | 20.73 | 21.08 | 20.08          | 21.59 | 20.46 | 21.92 | 22.28 |
|                 | 4H   | 19.51            | 20.93 | 19.91 | 21.28 | 21.65 | 20.97          | 22.39 | 21.37 | 22.74 | 23.12 |
|                 | 6H   | 19.92            | 21.24 | 20.33 | 21.61 | 22.00 | 21.75          | 23.07 | 22.16 | 23.44 | 23.83 |
|                 | 8H   | 20.03            | 21.29 | 20.45 | 21.68 | 22.08 | 22.07          | 23.34 | 22.50 | 23.72 | 24.12 |
|                 | 12H  | 20.08            | 21.29 | 20.51 | 21.67 | 22.10 | 22.28          | 23.49 | 22.71 | 23.88 | 24.30 |
| 4H              | 2H   | 17.91            | 19.33 | 18.31 | 19.68 | 20.05 | 18.55          | 19.98 | 18.95 | 20.32 | 20.70 |
|                 | 3H   | 19.89            | 21.08 | 20.29 | 21.48 | 21.88 | 20.91          | 22.11 | 21.32 | 22.50 | 22.90 |
|                 | 4H   | 20.62            | 21.71 | 21.05 | 22.12 | 22.56 | 21.96          | 23.05 | 22.39 | 23.46 | 23.90 |
|                 | 6H   | 21.15            | 22.10 | 21.60 | 22.54 | 23.00 | 22.91          | 23.87 | 23.37 | 24.31 | 24.76 |
|                 | 8H   | 21.30            | 22.19 | 21.76 | 22.63 | 23.09 | 23.31          | 24.20 | 23.77 | 24.64 | 25.11 |
|                 | 12H  | 21.38            | 22.18 | 21.86 | 22.66 | 23.13 | 23.59          | 24.39 | 24.07 | 24.87 | 25.33 |
| 8H              | 4H   | 21.08            | 21.97 | 21.54 | 22.41 | 22.88 | 22.25          | 23.14 | 22.71 | 23.58 | 24.05 |
|                 | 6H   | 21.74            | 22.49 | 22.23 | 22.97 | 23.45 | 23.36          | 24.11 | 23.85 | 24.59 | 25.07 |
|                 | 8H   | 21.95            | 22.62 | 22.46 | 23.13 | 23.61 | 23.87          | 24.54 | 24.38 | 25.05 | 25.53 |
|                 | 12H  | 22.09            | 22.68 | 22.60 | 23.17 | 23.73 | 24.26          | 24.85 | 24.77 | 25.34 | 25.90 |
| 12H             | 4H   | 21.17            | 21.97 | 21.65 | 22.45 | 22.92 | 22.28          | 23.08 | 22.75 | 23.55 | 24.02 |
|                 | 6H   | 21.87            | 22.54 | 22.38 | 23.05 | 23.53 | 23.41          | 24.08 | 23.92 | 24.58 | 25.07 |
|                 | 8H   | 22.15            | 22.74 | 22.66 | 23.23 | 23.79 | 23.99          | 24.58 | 24.49 | 25.07 | 25.63 |