

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: P1586689

Luminaire Tested: 22CZSP-A-47-L945

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586689  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2605-772-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22CZSP-A-47-L945  
Description: 2x2 CZSP LED Luminaire, 4500K CCT and 4500 lumens, 90CRI, Ribbed Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

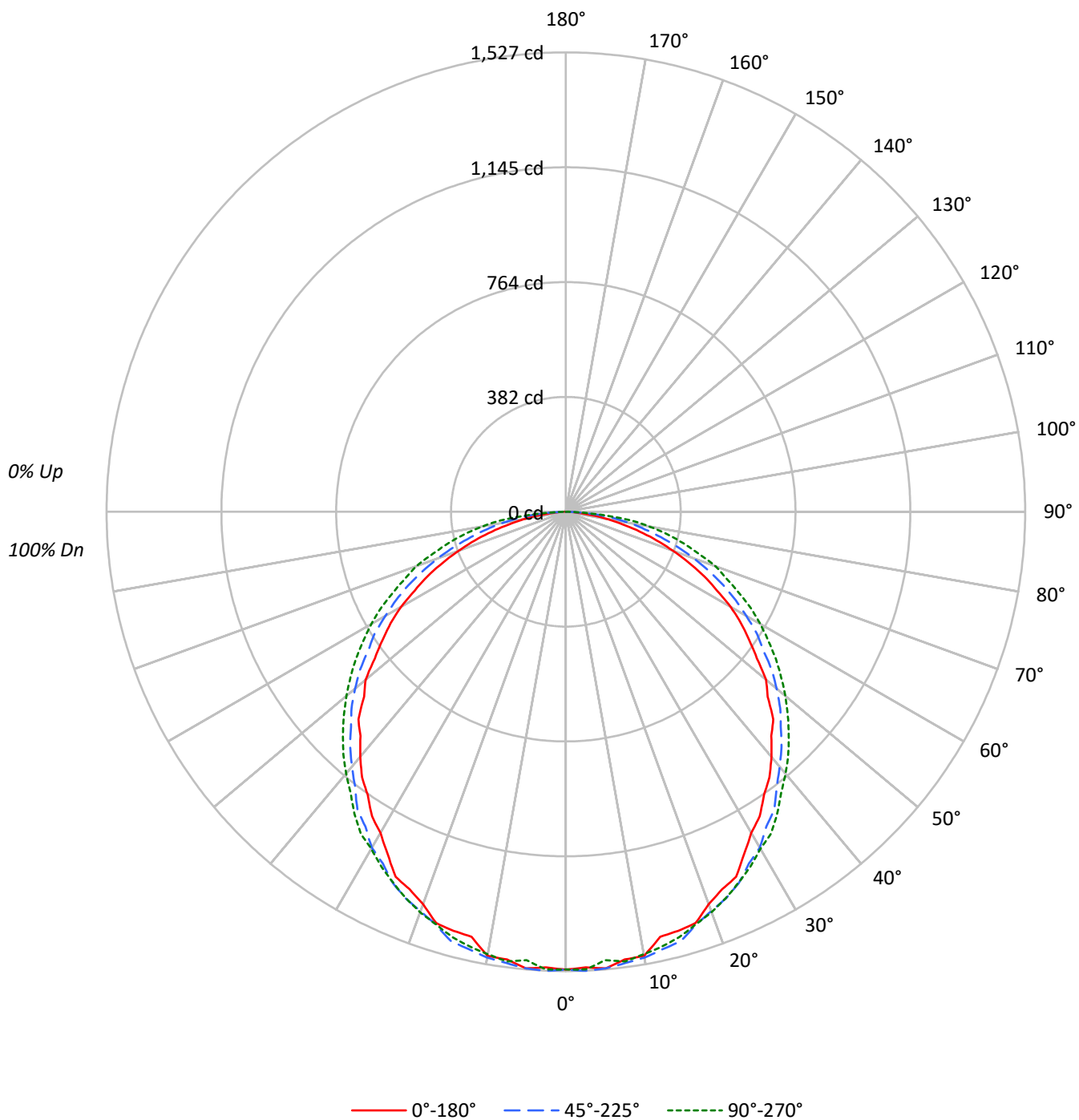
Lumens per Lamp: N/A  
Luminaire Lumens: 4443.0 lumens  
Efficiency: N/A  
Efficacy: 134.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.1  
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

TEST NUMBER: P1586689

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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   | 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  | 68  |    |    |
| 3   | 89  | 79  | 70  | 63  | 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  | 31  | 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°  | 4765 | 4765 | 4765 |
| 5°  | 4789 | 4789 | 4703 |
| 10° | 4766 | 4784 | 4748 |
| 15° | 4675 | 4789 | 4743 |
| 20° | 4626 | 4708 | 4721 |
| 25° | 4626 | 4704 | 4698 |
| 30° | 4457 | 4663 | 4677 |
| 35° | 4390 | 4618 | 4684 |
| 40° | 4346 | 4520 | 4644 |
| 45° | 4318 | 4473 | 4641 |
| 50° | 4233 | 4454 | 4639 |
| 55° | 4061 | 4371 | 4650 |
| 60° | 3964 | 4338 | 4676 |
| 65° | 3763 | 4275 | 4689 |
| 70° | 3470 | 4138 | 4850 |
| 75° | 3084 | 3955 | 4895 |
| 80° | 2562 | 3879 | 5074 |
| 85° | 1566 | 3471 | 4290 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 5251 cd/sqm

TEST NUMBER: P1586689

CATALOG NUMBER: 22CZSP-A-47-L945

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 144.3  | 3.2       |
| 10°-20°   | 412.3  | 9.3       |
| 20°-30°   | 621.9  | 14.0      |
| 30°-40°   | 747.0  | 16.8      |
| 40°-50°   | 779.8  | 17.6      |
| 50°-60°   | 718.0  | 16.2      |
| 60°-70°   | 567.0  | 12.8      |
| 70°-80°   | 349.2  | 7.9       |
| 80°-90°   | 103.5  | 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°    | 1178.6 | 26.5      |
| 0°-40°    | 1925.6 | 43.3      |
| 0°-60°    | 3423.4 | 77.1      |
| 0°-90°    | 4443.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4443.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1522 | 1522  | 1522 | 1522  | 1522 |      |
| 5°  | 1524 | 1508  | 1524 | 1526  | 1496 | 144  |
| 15° | 1442 | 1462  | 1477 | 1471  | 1463 | 408  |
| 25° | 1339 | 1348  | 1362 | 1356  | 1360 | 610  |
| 35° | 1148 | 1169  | 1208 | 1214  | 1225 | 722  |
| 45° | 975  | 983   | 1010 | 1032  | 1048 | 746  |
| 55° | 744  | 764   | 801  | 837   | 852  | 668  |
| 65° | 508  | 526   | 577  | 619   | 633  | 500  |
| 75° | 255  | 280   | 327  | 379   | 405  | 270  |
| 85° | 44   | 62    | 97   | 115   | 119  | 59   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1586689

CATALOG NUMBER: 22CZSP-A-47-L945

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1521.7 | 1521.7 | 1521.7 | 1521.7 | 1521.7 |
| 2.5°  | 1516.0 | 1532.1 | 1527.4 | 1530.3 | 1522.7 |
| 5°    | 1523.6 | 1508.5 | 1523.6 | 1525.5 | 1496.1 |
| 7.5°  | 1500.9 | 1502.8 | 1513.2 | 1516.0 | 1507.5 |
| 10°   | 1499.0 | 1504.7 | 1504.7 | 1495.2 | 1493.3 |
| 12.5° | 1446.9 | 1475.3 | 1489.5 | 1496.1 | 1480.0 |
| 15°   | 1442.1 | 1462.0 | 1477.2 | 1470.6 | 1463.0 |
| 17.5° | 1433.6 | 1427.9 | 1438.3 | 1445.9 | 1437.4 |
| 20°   | 1388.1 | 1397.6 | 1412.8 | 1414.7 | 1416.6 |
| 22.5° | 1357.8 | 1360.6 | 1391.0 | 1393.8 | 1390.0 |
| 25°   | 1338.9 | 1348.3 | 1361.6 | 1355.9 | 1359.7 |
| 27.5° | 1282.9 | 1305.7 | 1318.0 | 1329.4 | 1329.4 |
| 30°   | 1232.7 | 1259.3 | 1289.6 | 1293.4 | 1293.4 |
| 32.5° | 1199.6 | 1217.6 | 1240.3 | 1247.9 | 1268.7 |
| 35°   | 1148.4 | 1169.2 | 1208.1 | 1213.8 | 1225.2 |
| 37.5° | 1112.4 | 1133.2 | 1151.2 | 1171.1 | 1175.9 |
| 40°   | 1063.1 | 1084.9 | 1105.8 | 1128.5 | 1136.1 |
| 42.5° | 1011.0 | 1033.8 | 1061.2 | 1084.9 | 1094.4 |
| 45°   | 975.0  | 982.6  | 1010.1 | 1031.9 | 1048.0 |
| 47.5° | 909.6  | 931.4  | 966.5  | 994.0  | 1000.6 |
| 50°   | 868.9  | 877.4  | 914.4  | 951.3  | 952.3  |
| 52.5° | 800.7  | 826.2  | 862.2  | 897.3  | 902.0  |
| 55°   | 743.8  | 763.7  | 800.7  | 836.7  | 851.8  |
| 57.5° | 690.7  | 705.9  | 753.3  | 789.3  | 797.8  |
| 60°   | 632.9  | 649.1  | 692.6  | 734.3  | 746.7  |
| 62.5° | 565.7  | 588.4  | 635.8  | 675.6  | 692.6  |
| 65°   | 507.9  | 525.9  | 577.0  | 618.7  | 632.9  |
| 67.5° | 442.5  | 467.1  | 515.5  | 561.9  | 577.0  |
| 70°   | 379.0  | 403.6  | 452.0  | 500.3  | 529.7  |
| 72.5° | 316.5  | 342.1  | 390.4  | 446.3  | 462.4  |
| 75°   | 254.9  | 279.5  | 326.9  | 379.0  | 404.6  |
| 77.5° | 194.2  | 220.8  | 269.1  | 321.2  | 345.8  |
| 80°   | 142.1  | 163.0  | 215.1  | 260.6  | 281.4  |
| 82.5° | 88.1   | 109.9  | 158.2  | 200.9  | 218.9  |
| 85°   | 43.6   | 62.5   | 96.6   | 114.7  | 119.4  |
| 87.5° | 13.3   | 19.9   | 30.3   | 39.8   | 45.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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CATALOG NUMBER: 22CZSP-A-47-L945

**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 | 16.89            | 18.55 | 17.26 | 18.87 | 19.18 | 17.71          | 19.38 | 18.08 | 19.69 | 20.00 |
|                 | 3H   | 18.64            | 20.15 | 19.02 | 20.48 | 20.84 | 19.86          | 21.37 | 20.24 | 21.70 | 22.05 |
|                 | 4H   | 19.26            | 20.68 | 19.66 | 21.03 | 21.40 | 20.77          | 22.20 | 21.17 | 22.54 | 22.92 |
|                 | 6H   | 19.66            | 20.98 | 20.07 | 21.35 | 21.74 | 21.58          | 22.90 | 21.99 | 23.26 | 23.65 |
|                 | 8H   | 19.76            | 21.03 | 20.19 | 21.42 | 21.81 | 21.90          | 23.16 | 22.32 | 23.55 | 23.95 |
|                 | 12H  | 19.81            | 21.02 | 20.24 | 21.40 | 21.83 | 22.10          | 23.31 | 22.53 | 23.70 | 24.12 |
| 4H              | 2H   | 17.68            | 19.10 | 18.08 | 19.45 | 19.83 | 18.32          | 19.74 | 18.72 | 20.09 | 20.46 |
|                 | 3H   | 19.66            | 20.85 | 20.06 | 21.25 | 21.65 | 20.70          | 21.90 | 21.11 | 22.29 | 22.69 |
|                 | 4H   | 20.39            | 21.47 | 20.82 | 21.89 | 22.32 | 21.77          | 22.85 | 22.20 | 23.27 | 23.70 |
|                 | 6H   | 20.91            | 21.86 | 21.36 | 22.30 | 22.75 | 22.73          | 23.69 | 23.19 | 24.13 | 24.58 |
|                 | 8H   | 21.05            | 21.94 | 21.51 | 22.38 | 22.85 | 23.13          | 24.02 | 23.59 | 24.46 | 24.93 |
|                 | 12H  | 21.12            | 21.93 | 21.60 | 22.40 | 22.87 | 23.40          | 24.20 | 23.88 | 24.68 | 25.14 |
| 8H              | 4H   | 20.85            | 21.75 | 21.31 | 22.19 | 22.65 | 22.06          | 22.95 | 22.51 | 23.39 | 23.85 |
|                 | 6H   | 21.51            | 22.25 | 22.00 | 22.74 | 23.21 | 23.18          | 23.93 | 23.67 | 24.41 | 24.89 |
|                 | 8H   | 21.71            | 22.38 | 22.22 | 22.89 | 23.37 | 23.69          | 24.36 | 24.20 | 24.86 | 25.35 |
|                 | 12H  | 21.84            | 22.43 | 22.35 | 22.92 | 23.48 | 24.06          | 24.65 | 24.56 | 25.14 | 25.70 |
| 12H             | 4H   | 20.94            | 21.75 | 21.42 | 22.22 | 22.69 | 22.08          | 22.88 | 22.56 | 23.36 | 23.83 |
|                 | 6H   | 21.65            | 22.32 | 22.15 | 22.82 | 23.31 | 23.23          | 23.90 | 23.74 | 24.40 | 24.89 |
|                 | 8H   | 21.92            | 22.51 | 22.43 | 23.00 | 23.56 | 23.80          | 24.40 | 24.31 | 24.88 | 25.44 |