

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: P1586442

Luminaire Tested: 22CZSP-47-L930-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1586442  
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-47-L930-S  
Description: 2x2 CZSP LED Luminaire, 3000K CCT and 4500 lumens, 90CRI, Smooth Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

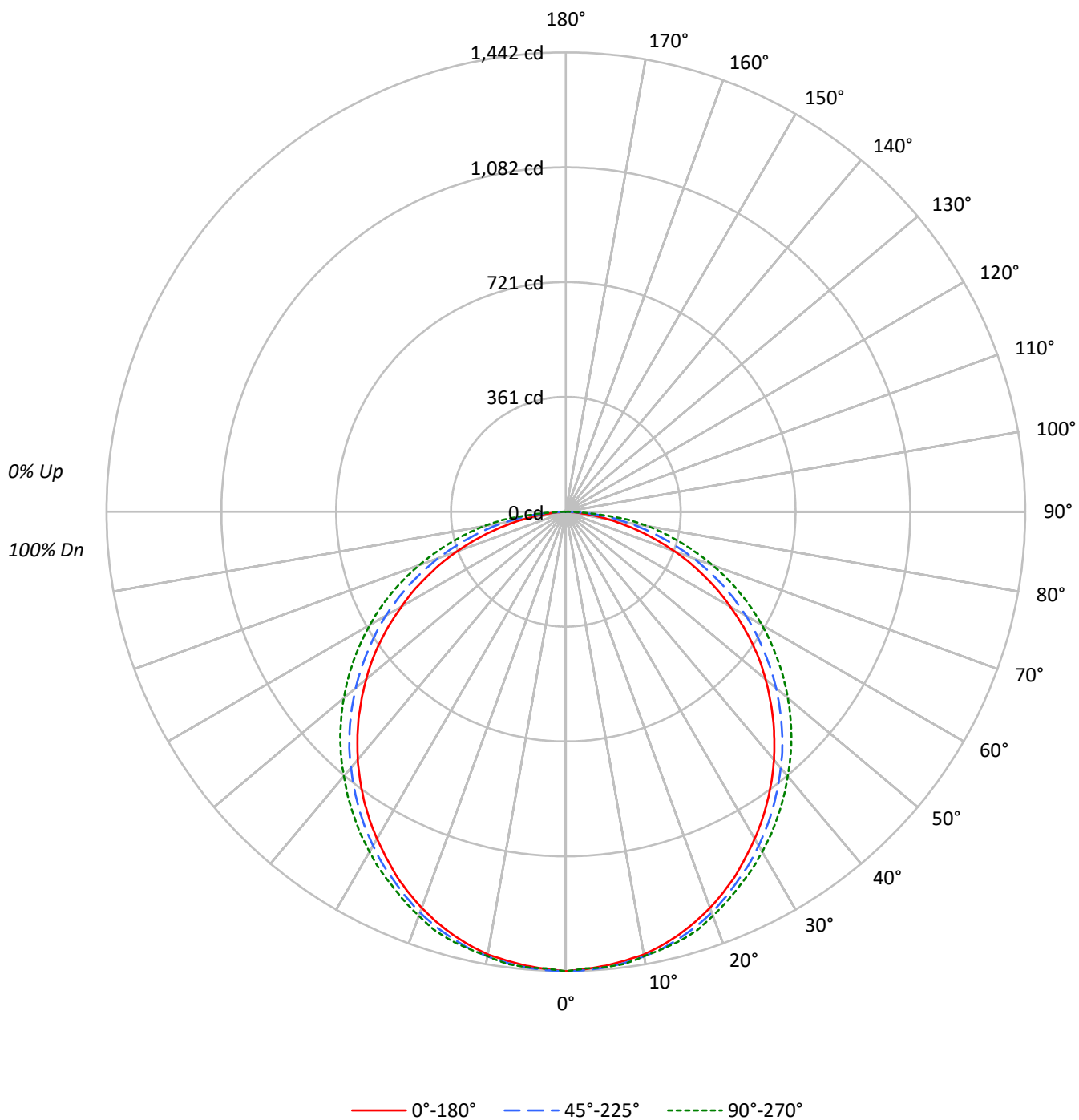
Lumens per Lamp: N/A  
Luminaire Lumens: 4211.0 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.88' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 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

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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  | 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  | 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°  | 4517 | 4517 | 4517 |
| 5°  | 4496 | 4513 | 4511 |
| 10° | 4486 | 4507 | 4504 |
| 15° | 4454 | 4490 | 4517 |
| 20° | 4409 | 4462 | 4499 |
| 25° | 4354 | 4415 | 4469 |
| 30° | 4286 | 4377 | 4457 |
| 35° | 4224 | 4334 | 4443 |
| 40° | 4155 | 4291 | 4431 |
| 45° | 4075 | 4247 | 4435 |
| 50° | 3988 | 4195 | 4434 |
| 55° | 3884 | 4137 | 4439 |
| 60° | 3738 | 4091 | 4450 |
| 65° | 3567 | 4012 | 4464 |
| 70° | 3324 | 3900 | 4483 |
| 75° | 2963 | 3744 | 4527 |
| 80° | 2449 | 3565 | 4748 |
| 85° | 1595 | 3219 | 4150 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4899 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 136.4  | 3.2       |
| 10°-20°   | 390.6  | 9.3       |
| 20°-30°   | 589.1  | 14.0      |
| 30°-40°   | 709.6  | 16.8      |
| 40°-50°   | 741.0  | 17.6      |
| 50°-60°   | 680.5  | 16.2      |
| 60°-70°   | 536.0  | 12.7      |
| 70°-80°   | 328.8  | 7.8       |
| 80°-90°   | 99.0   | 2.4       |
| 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°    | 1116.1 | 26.5      |
| 0°-40°    | 1825.7 | 43.4      |
| 0°-60°    | 3247.2 | 77.1      |
| 0°-90°    | 4211.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4211.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1442 | 1442  | 1442 | 1442  | 1442 |      |
| 5°  | 1430 | 1432  | 1436 | 1440  | 1435 | 136  |
| 15° | 1374 | 1377  | 1385 | 1393  | 1393 | 387  |
| 25° | 1260 | 1263  | 1278 | 1294  | 1294 | 580  |
| 35° | 1105 | 1111  | 1134 | 1157  | 1162 | 691  |
| 45° | 920  | 930   | 959  | 992   | 1002 | 710  |
| 55° | 712  | 724   | 758  | 800   | 813  | 635  |
| 65° | 481  | 498   | 542  | 587   | 602  | 476  |
| 75° | 245  | 264   | 310  | 358   | 374  | 260  |
| 85° | 44   | 61    | 90   | 114   | 116  | 58   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1442.4 | 1442.4 | 1442.4 | 1442.4 | 1442.4 |
| 2.5°  | 1436.8 | 1439.6 | 1440.5 | 1441.5 | 1435.0 |
| 5°    | 1430.4 | 1432.2 | 1435.9 | 1440.5 | 1435.0 |
| 7.5°  | 1421.1 | 1423.0 | 1427.6 | 1434.1 | 1431.3 |
| 10°   | 1411.0 | 1411.9 | 1417.4 | 1422.1 | 1416.5 |
| 12.5° | 1394.3 | 1397.1 | 1403.6 | 1407.3 | 1405.4 |
| 15°   | 1374.0 | 1376.8 | 1385.1 | 1393.4 | 1393.4 |
| 17.5° | 1350.0 | 1353.7 | 1363.8 | 1374.9 | 1375.9 |
| 20°   | 1323.2 | 1326.0 | 1338.9 | 1350.0 | 1350.0 |
| 22.5° | 1292.7 | 1296.4 | 1309.3 | 1321.3 | 1323.2 |
| 25°   | 1260.3 | 1263.1 | 1277.9 | 1293.6 | 1293.6 |
| 27.5° | 1222.5 | 1228.0 | 1246.5 | 1262.2 | 1265.9 |
| 30°   | 1185.5 | 1190.1 | 1210.5 | 1229.9 | 1232.6 |
| 32.5° | 1146.7 | 1152.2 | 1173.5 | 1194.7 | 1199.4 |
| 35°   | 1105.1 | 1110.7 | 1133.8 | 1156.9 | 1162.4 |
| 37.5° | 1061.7 | 1068.2 | 1092.2 | 1119.0 | 1124.5 |
| 40°   | 1016.4 | 1023.8 | 1049.7 | 1078.3 | 1083.9 |
| 42.5° | 968.4  | 978.5  | 1006.2 | 1035.8 | 1044.1 |
| 45°   | 920.3  | 930.5  | 959.1  | 992.4  | 1001.6 |
| 47.5° | 869.5  | 881.5  | 911.1  | 946.2  | 956.4  |
| 50°   | 818.7  | 830.7  | 861.2  | 899.1  | 910.2  |
| 52.5° | 766.9  | 778.9  | 810.4  | 850.1  | 862.1  |
| 55°   | 711.5  | 724.4  | 757.7  | 800.2  | 813.1  |
| 57.5° | 654.2  | 670.8  | 705.9  | 749.4  | 762.3  |
| 60°   | 596.9  | 613.5  | 653.3  | 695.8  | 710.6  |
| 62.5° | 540.5  | 556.3  | 596.9  | 642.2  | 657.9  |
| 65°   | 481.4  | 498.0  | 541.5  | 586.7  | 602.5  |
| 67.5° | 423.2  | 439.8  | 483.3  | 530.4  | 547.0  |
| 70°   | 363.1  | 381.6  | 426.0  | 473.1  | 489.7  |
| 72.5° | 303.1  | 322.5  | 367.8  | 415.8  | 431.5  |
| 75°   | 244.9  | 264.3  | 309.5  | 358.5  | 374.2  |
| 77.5° | 187.6  | 208.8  | 253.2  | 303.1  | 317.9  |
| 80°   | 135.8  | 156.2  | 197.7  | 246.7  | 263.3  |
| 82.5° | 86.9   | 104.4  | 146.0  | 192.2  | 204.2  |
| 85°   | 44.4   | 61.0   | 89.6   | 113.7  | 115.5  |
| 87.5° | 13.9   | 19.4   | 29.6   | 44.4   | 45.3   |
| 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 | 16.72            | 18.38 | 17.08 | 18.69 | 19.01 | 17.55          | 19.21 | 17.91 | 19.52 | 19.84 |
|                 | 3H   | 18.47            | 19.98 | 18.85 | 20.31 | 20.66 | 19.66          | 21.17 | 20.04 | 21.50 | 21.86 |
|                 | 4H   | 19.09            | 20.51 | 19.49 | 20.86 | 21.23 | 20.55          | 21.97 | 20.95 | 22.32 | 22.70 |
|                 | 6H   | 19.50            | 20.82 | 19.91 | 21.19 | 21.58 | 21.33          | 22.65 | 21.74 | 23.02 | 23.41 |
|                 | 8H   | 19.61            | 20.87 | 20.03 | 21.26 | 21.66 | 21.65          | 22.92 | 22.08 | 23.30 | 23.70 |
|                 | 12H  | 19.66            | 20.87 | 20.09 | 21.25 | 21.68 | 21.86          | 23.08 | 22.29 | 23.46 | 23.88 |
| 4H              | 2H   | 17.49            | 18.91 | 17.89 | 19.26 | 19.63 | 18.13          | 19.56 | 18.53 | 19.90 | 20.28 |
|                 | 3H   | 19.47            | 20.66 | 19.87 | 21.06 | 21.46 | 20.49          | 21.69 | 20.90 | 22.08 | 22.48 |
|                 | 4H   | 20.20            | 21.29 | 20.63 | 21.70 | 22.14 | 21.54          | 22.63 | 21.97 | 23.04 | 23.48 |
|                 | 6H   | 20.73            | 21.68 | 21.18 | 22.12 | 22.58 | 22.49          | 23.45 | 22.95 | 23.89 | 24.34 |
|                 | 8H   | 20.88            | 21.77 | 21.34 | 22.21 | 22.67 | 22.89          | 23.78 | 23.35 | 24.22 | 24.69 |
|                 | 12H  | 20.96            | 21.76 | 21.44 | 22.24 | 22.71 | 23.17          | 23.97 | 23.65 | 24.45 | 24.91 |
| 8H              | 4H   | 20.66            | 21.55 | 21.12 | 21.99 | 22.46 | 21.83          | 22.72 | 22.29 | 23.16 | 23.63 |
|                 | 6H   | 21.32            | 22.07 | 21.81 | 22.55 | 23.03 | 22.94          | 23.69 | 23.43 | 24.17 | 24.65 |
|                 | 8H   | 21.53            | 22.20 | 22.04 | 22.71 | 23.19 | 23.45          | 24.12 | 23.96 | 24.63 | 25.11 |
|                 | 12H  | 21.67            | 22.26 | 22.18 | 22.75 | 23.31 | 23.84          | 24.43 | 24.35 | 24.92 | 25.48 |
| 12H             | 4H   | 20.75            | 21.55 | 21.23 | 22.03 | 22.50 | 21.86          | 22.66 | 22.33 | 23.13 | 23.60 |
|                 | 6H   | 21.45            | 22.12 | 21.96 | 22.63 | 23.11 | 22.99          | 23.66 | 23.50 | 24.16 | 24.65 |
|                 | 8H   | 21.73            | 22.32 | 22.24 | 22.81 | 23.37 | 23.57          | 24.16 | 24.07 | 24.65 | 25.21 |