

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: P1589751

Luminaire Tested: 24CZSP-SB-42-L950

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1589751  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 24CZSP-SB-42-L950  
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 3500 lumens, 90CRI, Ribbed Lens, SB housing  
Light Source: -  
Ballast/Driver: -

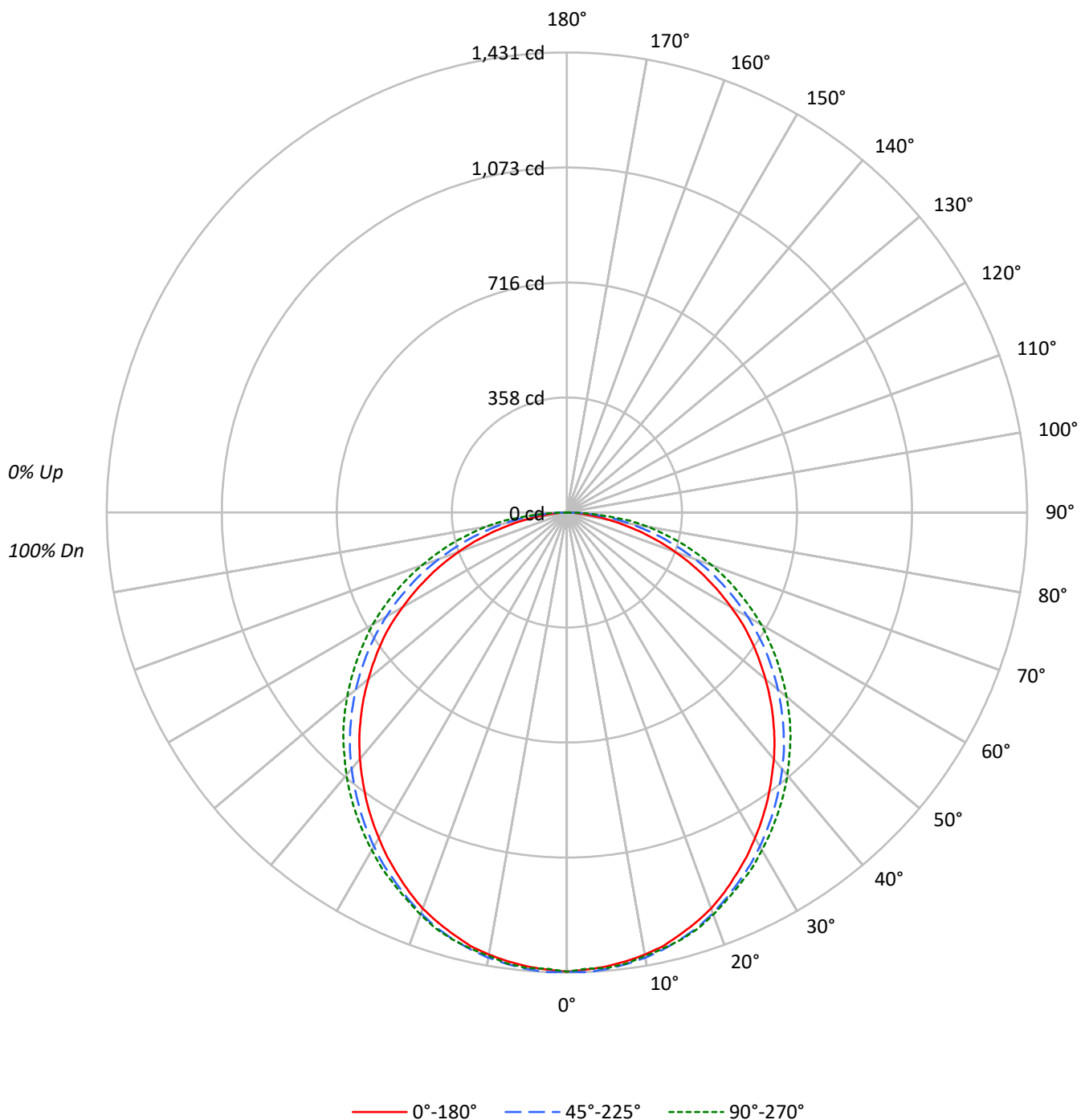
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4168.0 lumens  
Efficiency: N/A  
Efficacy: 145.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.7  
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  | 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  | 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°  | 2187 | 2187 | 2187 |
| 5°  | 2180 | 2192 | 2186 |
| 10° | 2172 | 2187 | 2179 |
| 15° | 2156 | 2178 | 2181 |
| 20° | 2137 | 2163 | 2170 |
| 25° | 2102 | 2139 | 2154 |
| 30° | 2069 | 2122 | 2145 |
| 35° | 2035 | 2101 | 2138 |
| 40° | 2002 | 2083 | 2132 |
| 45° | 1964 | 2064 | 2131 |
| 50° | 1921 | 2041 | 2125 |
| 55° | 1877 | 2019 | 2125 |
| 60° | 1808 | 1989 | 2138 |
| 65° | 1723 | 1950 | 2139 |
| 70° | 1608 | 1896 | 2145 |
| 75° | 1430 | 1827 | 2182 |
| 80° | 1175 | 1751 | 2264 |
| 85° | 775  | 1643 | 2046 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2319 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 135.1  | 3.2       |
| 10°-20°   | 386.7  | 9.3       |
| 20°-30°   | 582.9  | 14.0      |
| 30°-40°   | 701.9  | 16.8      |
| 40°-50°   | 733.3  | 17.6      |
| 50°-60°   | 673.7  | 16.2      |
| 60°-70°   | 530.5  | 12.7      |
| 70°-80°   | 325.3  | 7.8       |
| 80°-90°   | 98.6   | 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°    | 1104.7 | 26.5      |
| 0°-40°    | 1806.6 | 43.3      |
| 0°-60°    | 3213.6 | 77.1      |
| 0°-90°    | 4168.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4168.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1428 | 1428  | 1428 | 1428  | 1428 |      |
| 5°  | 1418 | 1420  | 1426 | 1424  | 1422 | 135  |
| 15° | 1359 | 1365  | 1374 | 1379  | 1375 | 384  |
| 25° | 1244 | 1252  | 1266 | 1279  | 1275 | 573  |
| 35° | 1089 | 1103  | 1124 | 1144  | 1143 | 681  |
| 45° | 907  | 926   | 953  | 979   | 984  | 699  |
| 55° | 703  | 723   | 756  | 789   | 796  | 627  |
| 65° | 476  | 500   | 538  | 574   | 590  | 470  |
| 75° | 242  | 270   | 309  | 346   | 369  | 257  |
| 85° | 44   | 65    | 94   | 104   | 116  | 57   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1428.2 | 1428.2 | 1428.2 | 1428.2 | 1428.2 |
| 2.5°  | 1422.9 | 1426.4 | 1430.9 | 1423.8 | 1420.3 |
| 5°    | 1417.6 | 1420.3 | 1425.6 | 1423.8 | 1422.0 |
| 7.5°  | 1407.9 | 1409.7 | 1416.7 | 1416.7 | 1415.0 |
| 10°   | 1396.4 | 1400.0 | 1406.2 | 1405.3 | 1400.9 |
| 12.5° | 1381.5 | 1384.1 | 1391.2 | 1391.2 | 1388.5 |
| 15°   | 1359.4 | 1364.7 | 1373.5 | 1378.8 | 1375.3 |
| 17.5° | 1336.5 | 1341.8 | 1353.2 | 1358.5 | 1356.8 |
| 20°   | 1310.9 | 1315.3 | 1326.8 | 1334.7 | 1331.2 |
| 22.5° | 1279.1 | 1284.4 | 1297.6 | 1306.5 | 1302.9 |
| 25°   | 1243.8 | 1251.8 | 1265.9 | 1279.1 | 1274.7 |
| 27.5° | 1208.6 | 1217.4 | 1235.0 | 1248.2 | 1246.5 |
| 30°   | 1169.7 | 1181.2 | 1199.7 | 1216.5 | 1213.0 |
| 32.5° | 1130.0 | 1143.3 | 1162.7 | 1180.3 | 1179.4 |
| 35°   | 1088.6 | 1102.7 | 1123.9 | 1144.2 | 1143.3 |
| 37.5° | 1044.5 | 1061.2 | 1083.3 | 1105.3 | 1106.2 |
| 40°   | 1001.2 | 1017.1 | 1041.8 | 1065.6 | 1066.5 |
| 42.5° | 955.4  | 972.1  | 998.6  | 1023.3 | 1024.2 |
| 45°   | 906.9  | 926.3  | 952.7  | 979.2  | 983.6  |
| 47.5° | 857.5  | 877.7  | 905.1  | 933.3  | 938.6  |
| 50°   | 806.3  | 827.5  | 856.6  | 886.6  | 891.9  |
| 52.5° | 754.2  | 776.3  | 806.3  | 836.3  | 844.2  |
| 55°   | 703.1  | 723.4  | 756.0  | 788.6  | 795.7  |
| 57.5° | 649.3  | 667.8  | 703.1  | 737.5  | 746.3  |
| 60°   | 590.2  | 613.1  | 649.3  | 683.7  | 697.8  |
| 62.5° | 532.8  | 557.5  | 594.6  | 629.0  | 644.9  |
| 65°   | 475.5  | 500.2  | 538.1  | 574.3  | 590.2  |
| 67.5° | 417.3  | 442.8  | 483.4  | 517.8  | 535.5  |
| 70°   | 359.0  | 384.6  | 423.4  | 460.5  | 479.0  |
| 72.5° | 300.8  | 328.2  | 366.1  | 404.0  | 422.6  |
| 75°   | 241.7  | 269.9  | 308.8  | 345.8  | 368.7  |
| 77.5° | 186.1  | 213.5  | 252.3  | 290.2  | 309.6  |
| 80°   | 133.2  | 160.6  | 198.5  | 236.4  | 256.7  |
| 82.5° | 84.7   | 110.3  | 147.3  | 179.1  | 197.6  |
| 85°   | 44.1   | 65.3   | 93.5   | 104.1  | 116.4  |
| 87.5° | 13.2   | 25.6   | 36.2   | 40.6   | 50.3   |
| 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 | 14.23            | 15.90 | 14.60 | 16.21 | 16.52 | 14.98          | 16.64 | 15.34 | 16.96 | 17.27 |
|                 | 3H   | 16.00            | 17.50 | 16.37 | 17.83 | 18.19 | 17.07          | 18.58 | 17.45 | 18.91 | 19.27 |
|                 | 4H   | 16.62            | 18.04 | 17.02 | 18.39 | 18.76 | 17.96          | 19.38 | 18.36 | 19.73 | 20.10 |
|                 | 6H   | 17.03            | 18.35 | 17.44 | 18.72 | 19.11 | 18.73          | 20.05 | 19.14 | 20.41 | 20.80 |
|                 | 8H   | 17.14            | 18.40 | 17.56 | 18.79 | 19.19 | 19.04          | 20.30 | 19.46 | 20.69 | 21.09 |
|                 | 12H  | 17.19            | 18.40 | 17.62 | 18.78 | 19.21 | 19.25          | 20.46 | 19.68 | 20.84 | 21.27 |
| 4H              | 2H   | 15.00            | 16.43 | 15.40 | 16.77 | 17.15 | 15.58          | 17.01 | 15.98 | 17.35 | 17.73 |
|                 | 3H   | 17.00            | 18.19 | 17.41 | 18.59 | 18.99 | 17.91          | 19.11 | 18.32 | 19.51 | 19.91 |
|                 | 4H   | 17.75            | 18.84 | 18.18 | 19.25 | 19.68 | 18.95          | 20.03 | 19.38 | 20.44 | 20.88 |
|                 | 6H   | 18.29            | 19.24 | 18.74 | 19.68 | 20.13 | 19.88          | 20.83 | 20.33 | 21.27 | 21.72 |
|                 | 8H   | 18.43            | 19.33 | 18.89 | 19.77 | 20.23 | 20.26          | 21.15 | 20.72 | 21.59 | 22.06 |
|                 | 12H  | 18.52            | 19.32 | 19.00 | 19.80 | 20.27 | 20.54          | 21.34 | 21.01 | 21.81 | 22.28 |
| 8H              | 4H   | 18.20            | 19.09 | 18.66 | 19.54 | 20.00 | 19.25          | 20.14 | 19.70 | 20.58 | 21.04 |
|                 | 6H   | 18.88            | 19.62 | 19.37 | 20.11 | 20.59 | 20.33          | 21.07 | 20.82 | 21.56 | 22.03 |
|                 | 8H   | 19.10            | 19.77 | 19.61 | 20.27 | 20.76 | 20.82          | 21.49 | 21.32 | 21.99 | 22.48 |
|                 | 12H  | 19.25            | 19.84 | 19.75 | 20.33 | 20.89 | 21.19          | 21.78 | 21.70 | 22.27 | 22.83 |
| 12H             | 4H   | 18.29            | 19.09 | 18.76 | 19.56 | 20.03 | 19.27          | 20.08 | 19.75 | 20.55 | 21.02 |
|                 | 6H   | 19.01            | 19.68 | 19.51 | 20.18 | 20.67 | 20.38          | 21.05 | 20.89 | 21.56 | 22.04 |
|                 | 8H   | 19.30            | 19.89 | 19.80 | 20.38 | 20.94 | 20.94          | 21.53 | 21.44 | 22.02 | 22.58 |