

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: P1589740

Luminaire Tested: 24CZSP-SB-42-L850-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1589740  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2608-884-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 24CZSP-SB-42-L850-S  
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 3500 lumens, 80CRI, Smooth Lens, SB housing  
Light Source: -  
Ballast/Driver: -

**Summary**

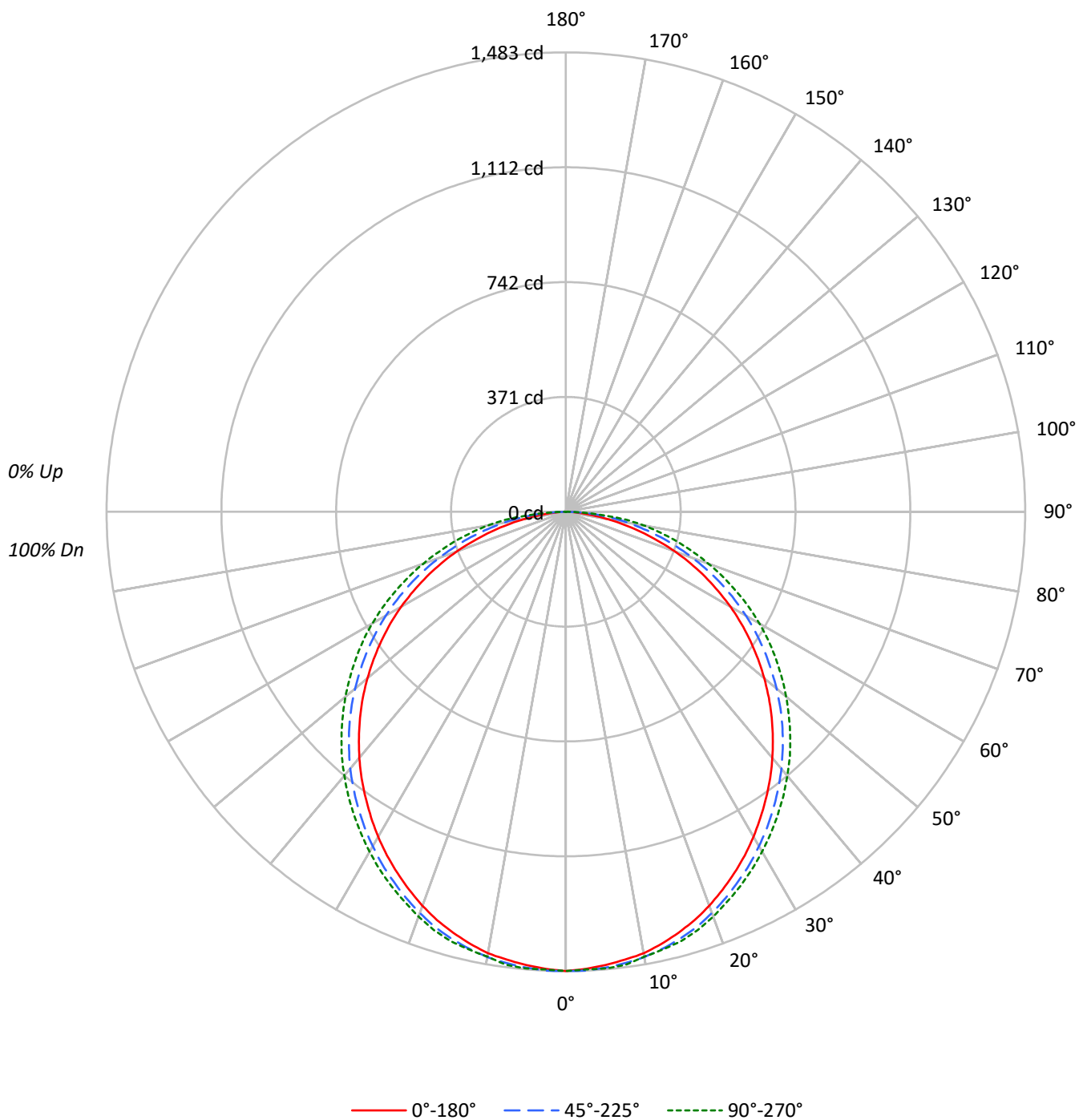
Lumens per Lamp: N/A  
Luminaire Lumens: 4313.0 lumens  
Efficiency: N/A  
Efficacy: 150.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

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  | 94  | 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  | 66  | 61  | 69  | 64  | 60  | 58  |    |    |
| 4   | 82  | 70  | 61  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 53  | 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  | 45  | 39  | 50  | 44  | 39  | 37  |    |    |
| 7   | 64  | 51  | 42  | 35  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |    |    |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 31  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 29  |    |    |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |    |    |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2271 | 2271 | 2271 |
| 5°  | 2258 | 2271 | 2275 |
| 10° | 2251 | 2270 | 2268 |
| 15° | 2230 | 2263 | 2276 |
| 20° | 2206 | 2247 | 2267 |
| 25° | 2175 | 2225 | 2253 |
| 30° | 2143 | 2205 | 2241 |
| 35° | 2108 | 2184 | 2231 |
| 40° | 2074 | 2165 | 2224 |
| 45° | 2036 | 2142 | 2219 |
| 50° | 1992 | 2116 | 2213 |
| 55° | 1942 | 2089 | 2210 |
| 60° | 1881 | 2058 | 2211 |
| 65° | 1796 | 2014 | 2199 |
| 70° | 1678 | 1953 | 2194 |
| 75° | 1488 | 1878 | 2202 |
| 80° | 1211 | 1784 | 2267 |
| 85° | 782  | 1647 | 1956 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2298 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 140.3  | 3.3       |
| 10°-20°   | 401.8  | 9.3       |
| 20°-30°   | 605.8  | 14.0      |
| 30°-40°   | 728.9  | 16.9      |
| 40°-50°   | 760.4  | 17.6      |
| 50°-60°   | 696.9  | 16.2      |
| 60°-70°   | 547.3  | 12.7      |
| 70°-80°   | 333.1  | 7.7       |
| 80°-90°   | 98.5   | 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°    | 1147.9 | 26.6      |
| 0°-40°    | 1876.8 | 43.5      |
| 0°-60°    | 3334.1 | 77.3      |
| 0°-90°    | 4313.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4313.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1483 | 1483  | 1483 | 1483  | 1483 |      |
| 5°  | 1469 | 1478  | 1477 | 1475  | 1480 | 140  |
| 15° | 1407 | 1420  | 1427 | 1429  | 1435 | 397  |
| 25° | 1287 | 1304  | 1317 | 1325  | 1333 | 593  |
| 35° | 1127 | 1145  | 1168 | 1185  | 1193 | 705  |
| 45° | 940  | 959   | 989  | 1012  | 1024 | 725  |
| 55° | 727  | 746   | 782  | 814   | 828  | 650  |
| 65° | 496  | 514   | 556  | 593   | 607  | 490  |
| 75° | 251  | 275   | 317  | 355   | 372  | 267  |
| 85° | 44   | 63    | 94   | 105   | 111  | 58   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1482.7 | 1482.7 | 1482.7 | 1482.7 | 1482.7 |
| 2.5°  | 1477.1 | 1484.5 | 1482.7 | 1476.2 | 1478.9 |
| 5°    | 1468.7 | 1478.0 | 1477.1 | 1475.2 | 1479.9 |
| 7.5°  | 1458.5 | 1468.7 | 1469.7 | 1469.7 | 1475.2 |
| 10°   | 1447.4 | 1457.6 | 1459.5 | 1456.7 | 1458.5 |
| 12.5° | 1428.8 | 1440.9 | 1444.6 | 1444.6 | 1447.4 |
| 15°   | 1406.6 | 1420.5 | 1427.0 | 1428.8 | 1435.3 |
| 17.5° | 1382.5 | 1397.3 | 1405.7 | 1410.3 | 1415.9 |
| 20°   | 1353.7 | 1369.5 | 1378.7 | 1384.3 | 1390.8 |
| 22.5° | 1321.2 | 1338.8 | 1349.1 | 1354.6 | 1362.0 |
| 25°   | 1286.9 | 1304.5 | 1316.6 | 1324.9 | 1333.3 |
| 27.5° | 1250.7 | 1267.4 | 1284.1 | 1294.3 | 1301.7 |
| 30°   | 1211.7 | 1229.4 | 1247.0 | 1260.0 | 1267.4 |
| 32.5° | 1170.0 | 1188.5 | 1209.0 | 1222.9 | 1231.2 |
| 35°   | 1127.3 | 1144.9 | 1168.1 | 1184.8 | 1193.2 |
| 37.5° | 1083.7 | 1102.3 | 1126.4 | 1144.0 | 1154.2 |
| 40°   | 1037.3 | 1056.8 | 1082.8 | 1102.3 | 1112.5 |
| 42.5° | 989.1  | 1007.6 | 1036.4 | 1058.6 | 1070.7 |
| 45°   | 939.9  | 959.4  | 989.1  | 1012.3 | 1024.3 |
| 47.5° | 888.9  | 907.4  | 939.9  | 966.8  | 977.0  |
| 50°   | 836.0  | 853.6  | 887.9  | 916.7  | 928.8  |
| 52.5° | 782.2  | 800.7  | 835.0  | 865.7  | 878.6  |
| 55°   | 727.4  | 746.0  | 782.2  | 813.7  | 827.6  |
| 57.5° | 671.7  | 690.3  | 727.4  | 759.9  | 776.6  |
| 60°   | 614.2  | 632.8  | 671.7  | 705.1  | 721.8  |
| 62.5° | 554.8  | 574.3  | 614.2  | 648.5  | 666.2  |
| 65°   | 495.5  | 514.0  | 555.8  | 592.9  | 606.8  |
| 67.5° | 436.1  | 454.6  | 495.5  | 532.6  | 549.3  |
| 70°   | 374.8  | 396.2  | 436.1  | 475.0  | 489.9  |
| 72.5° | 310.8  | 334.9  | 374.8  | 415.7  | 430.5  |
| 75°   | 251.4  | 274.6  | 317.3  | 355.4  | 372.1  |
| 77.5° | 193.0  | 218.0  | 257.9  | 296.9  | 313.6  |
| 80°   | 137.3  | 161.4  | 202.3  | 239.4  | 257.0  |
| 82.5° | 87.2   | 108.6  | 149.4  | 182.8  | 195.8  |
| 85°   | 44.5   | 63.1   | 93.7   | 104.8  | 111.3  |
| 87.5° | 13.0   | 22.3   | 33.4   | 41.8   | 46.4   |
| 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 | 14.35            | 16.01 | 14.71 | 16.32 | 16.64 | 15.08          | 16.74 | 15.45 | 17.06 | 17.37 |
|                 | 3H   | 16.12            | 17.62 | 16.49 | 17.95 | 18.31 | 17.16          | 18.67 | 17.54 | 18.99 | 19.35 |
|                 | 4H   | 16.74            | 18.16 | 17.13 | 18.50 | 18.88 | 18.03          | 19.45 | 18.43 | 19.80 | 20.17 |
|                 | 6H   | 17.15            | 18.46 | 17.56 | 18.83 | 19.22 | 18.77          | 20.09 | 19.18 | 20.45 | 20.85 |
|                 | 8H   | 17.25            | 18.51 | 17.67 | 18.90 | 19.29 | 19.07          | 20.33 | 19.49 | 20.72 | 21.12 |
|                 | 12H  | 17.30            | 18.50 | 17.73 | 18.89 | 19.31 | 19.26          | 20.47 | 19.69 | 20.85 | 21.28 |
| 4H              | 2H   | 15.12            | 16.54 | 15.52 | 16.88 | 17.26 | 15.69          | 17.11 | 16.09 | 17.46 | 17.83 |
|                 | 3H   | 17.11            | 18.30 | 17.52 | 18.70 | 19.10 | 18.00          | 19.20 | 18.41 | 19.59 | 19.99 |
|                 | 4H   | 17.85            | 18.93 | 18.28 | 19.35 | 19.78 | 19.02          | 20.10 | 19.45 | 20.52 | 20.95 |
|                 | 6H   | 18.38            | 19.33 | 18.83 | 19.77 | 20.22 | 19.93          | 20.88 | 20.38 | 21.32 | 21.77 |
|                 | 8H   | 18.52            | 19.41 | 18.98 | 19.85 | 20.32 | 20.29          | 21.18 | 20.75 | 21.62 | 22.09 |
|                 | 12H  | 18.60            | 19.40 | 19.08 | 19.88 | 20.35 | 20.55          | 21.35 | 21.03 | 21.82 | 22.29 |
| 8H              | 4H   | 18.30            | 19.19 | 18.76 | 19.63 | 20.09 | 19.32          | 20.21 | 19.78 | 20.65 | 21.11 |
|                 | 6H   | 18.96            | 19.70 | 19.45 | 20.19 | 20.66 | 20.38          | 21.12 | 20.87 | 21.60 | 22.08 |
|                 | 8H   | 19.17            | 19.83 | 19.68 | 20.34 | 20.82 | 20.85          | 21.51 | 21.35 | 22.02 | 22.50 |
|                 | 12H  | 19.31            | 19.90 | 19.81 | 20.38 | 20.94 | 21.20          | 21.79 | 21.70 | 22.28 | 22.84 |
| 12H             | 4H   | 18.38            | 19.18 | 18.86 | 19.65 | 20.12 | 19.34          | 20.15 | 19.82 | 20.62 | 21.09 |
|                 | 6H   | 19.08            | 19.75 | 19.59 | 20.26 | 20.74 | 20.43          | 21.09 | 20.93 | 21.60 | 22.08 |
|                 | 8H   | 19.36            | 19.95 | 19.87 | 20.44 | 21.00 | 20.96          | 21.55 | 21.47 | 22.04 | 22.60 |