

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: P1588597

Luminaire Tested: 24CZSP-A-42-L840

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588597  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2604-747-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/3/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 24CZSP-A-42-L840  
Description: 2x4 CZSP LED Luminaire, 4000K CCT and 3500 lumens, 80CRI, Ribbed Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

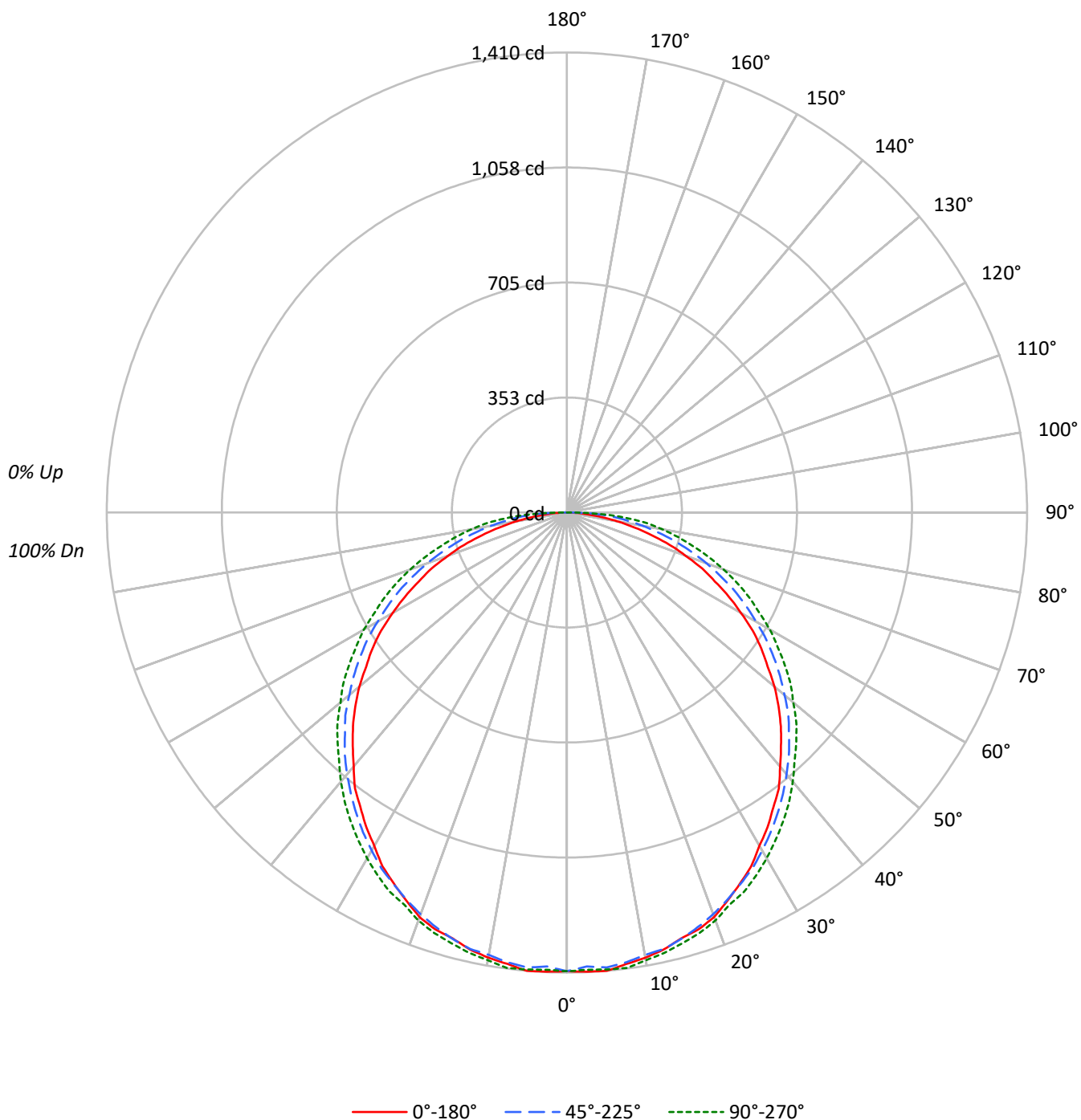
Lumens per Lamp: N/A  
Luminaire Lumens: 4291.0 lumens  
Efficiency: N/A  
Efficacy: 149.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

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  |     |     | 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 | 98  | 94  | 105 | 100 | 96  | 92  | 96  | 93  | 89  |  | 92  | 89  | 87  |  | 89  | 86  | 84  | 82  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 78  | 73  |  | 80  | 75  | 71  |  | 77  | 73  | 70  | 67  |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 61  |  | 70  | 64  | 60  |  | 68  | 63  | 59  | 56  |
| 4   | 81  | 69  | 60  | 53  | 79  | 67  | 59  | 52  | 65  | 57  | 51  |  | 62  | 56  | 51  |  | 60  | 55  | 50  | 48  |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 45  | 58  | 50  | 44  |  | 56  | 49  | 44  |  | 54  | 48  | 43  | 41  |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 45  | 39  | 52  | 44  | 39  |  | 50  | 44  | 38  |  | 49  | 43  | 38  | 36  |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 40  | 34  | 47  | 40  | 34  |  | 46  | 39  | 34  |  | 45  | 38  | 34  | 32  |
| 8   | 59  | 45  | 37  | 31  | 58  | 45  | 36  | 31  | 43  | 36  | 30  |  | 42  | 35  | 30  |  | 41  | 35  | 30  | 28  |
| 9   | 55  | 42  | 33  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 27  |  | 39  | 32  | 27  |  | 38  | 32  | 27  | 25  |
| 10  | 52  | 38  | 30  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  |  | 36  | 29  | 25  |  | 35  | 29  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2153 | 2153 | 2153 |
| 5°  | 2168 | 2152 | 2161 |
| 10° | 2154 | 2142 | 2167 |
| 15° | 2143 | 2146 | 2167 |
| 20° | 2151 | 2136 | 2169 |
| 25° | 2121 | 2124 | 2169 |
| 30° | 2086 | 2116 | 2165 |
| 35° | 2062 | 2104 | 2160 |
| 40° | 2032 | 2094 | 2153 |
| 45° | 2008 | 2084 | 2152 |
| 50° | 1978 | 2074 | 2157 |
| 55° | 1943 | 2066 | 2176 |
| 60° | 1889 | 2052 | 2200 |
| 65° | 1814 | 2052 | 2235 |
| 70° | 1730 | 2039 | 2287 |
| 75° | 1593 | 2043 | 2372 |
| 80° | 1396 | 2085 | 2611 |
| 85° | 1065 | 2402 | 3125 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 3466 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 133.5  | 3.1       |
| 10°-20°   | 383.7  | 8.9       |
| 20°-30°   | 582.9  | 13.6      |
| 30°-40°   | 706.1  | 16.5      |
| 40°-50°   | 742.8  | 17.3      |
| 50°-60°   | 690.7  | 16.1      |
| 60°-70°   | 556.1  | 13.0      |
| 70°-80°   | 360.2  | 8.4       |
| 80°-90°   | 135.1  | 3.1       |
| 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       |
| <hr/>     |        |           |
| 0°-30°    | 1100.0 | 25.6      |
| 0°-40°    | 1806.1 | 42.1      |
| 0°-60°    | 3239.6 | 75.5      |
| 0°-90°    | 4291.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4291.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1406 | 1406  | 1406 | 1406  | 1406 |      |
| 5°  | 1410 | 1408  | 1400 | 1408  | 1406 | 134  |
| 15° | 1351 | 1356  | 1353 | 1370  | 1367 | 383  |
| 25° | 1255 | 1254  | 1257 | 1278  | 1284 | 578  |
| 35° | 1103 | 1111  | 1125 | 1145  | 1155 | 691  |
| 45° | 927  | 939   | 962  | 982   | 994  | 715  |
| 55° | 728  | 746   | 774  | 805   | 815  | 649  |
| 65° | 500  | 523   | 566  | 600   | 617  | 498  |
| 75° | 269  | 296   | 345  | 385   | 401  | 286  |
| 85° | 61   | 89    | 137  | 171   | 178  | 74   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1405.8 | 1405.8 | 1405.8 | 1405.8 | 1405.8 |
| 2.5°  | 1408.9 | 1408.9 | 1392.5 | 1409.9 | 1402.7 |
| 5°    | 1409.9 | 1407.9 | 1399.7 | 1407.9 | 1405.8 |
| 7.5°  | 1395.6 | 1397.6 | 1390.4 | 1400.7 | 1407.9 |
| 10°   | 1385.3 | 1387.3 | 1377.1 | 1393.5 | 1393.5 |
| 12.5° | 1371.9 | 1374.0 | 1369.9 | 1385.3 | 1382.2 |
| 15°   | 1351.4 | 1356.5 | 1353.4 | 1369.9 | 1366.8 |
| 17.5° | 1340.1 | 1335.9 | 1332.9 | 1345.2 | 1351.4 |
| 20°   | 1319.5 | 1310.3 | 1310.3 | 1326.7 | 1330.8 |
| 22.5° | 1286.6 | 1283.5 | 1284.6 | 1305.1 | 1301.0 |
| 25°   | 1254.8 | 1253.7 | 1256.8 | 1278.4 | 1283.5 |
| 27.5° | 1222.9 | 1220.9 | 1230.1 | 1250.7 | 1254.8 |
| 30°   | 1179.7 | 1183.9 | 1196.2 | 1218.8 | 1223.9 |
| 32.5° | 1143.8 | 1151.0 | 1162.3 | 1183.9 | 1190.0 |
| 35°   | 1102.7 | 1110.9 | 1125.3 | 1144.8 | 1155.1 |
| 37.5° | 1066.7 | 1071.8 | 1087.3 | 1105.8 | 1118.1 |
| 40°   | 1016.3 | 1029.7 | 1047.2 | 1073.9 | 1077.0 |
| 42.5° | 971.1  | 984.5  | 1007.1 | 1035.9 | 1032.8 |
| 45°   | 926.9  | 939.3  | 961.9  | 982.4  | 993.7  |
| 47.5° | 879.7  | 891.0  | 920.8  | 945.4  | 953.7  |
| 50°   | 830.3  | 844.7  | 870.4  | 896.1  | 905.4  |
| 52.5° | 774.9  | 790.3  | 823.1  | 850.9  | 864.3  |
| 55°   | 727.6  | 746.1  | 773.8  | 804.7  | 814.9  |
| 57.5° | 675.2  | 690.6  | 724.5  | 755.3  | 765.6  |
| 60°   | 616.6  | 635.1  | 670.0  | 702.9  | 718.3  |
| 62.5° | 560.1  | 580.6  | 617.6  | 651.5  | 663.9  |
| 65°   | 500.5  | 523.1  | 566.2  | 600.1  | 616.6  |
| 67.5° | 449.1  | 467.6  | 509.7  | 547.7  | 565.2  |
| 70°   | 386.4  | 411.1  | 455.3  | 497.4  | 510.7  |
| 72.5° | 330.9  | 352.5  | 398.7  | 440.9  | 457.3  |
| 75°   | 269.2  | 296.0  | 345.3  | 385.4  | 400.8  |
| 77.5° | 212.7  | 240.5  | 289.8  | 331.9  | 349.4  |
| 80°   | 158.3  | 185.0  | 236.4  | 279.5  | 296.0  |
| 82.5° | 106.9  | 133.6  | 185.0  | 227.1  | 245.6  |
| 85°   | 60.6   | 89.4   | 136.7  | 170.6  | 177.8  |
| 87.5° | 26.7   | 51.4   | 77.1   | 92.5   | 98.7   |
| 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            | 16.03 | 14.71 | 16.34 | 16.66 | 15.02          | 16.70 | 15.39 | 17.02 | 17.33 |
|                 | 3H   | 16.20            | 17.73 | 16.58 | 18.06 | 18.42 | 17.24          | 18.77 | 17.62 | 19.10 | 19.45 |
|                 | 4H   | 16.89            | 18.33 | 17.29 | 18.68 | 19.05 | 18.20          | 19.65 | 18.60 | 20.00 | 20.37 |
|                 | 6H   | 17.38            | 18.72 | 17.79 | 19.09 | 19.48 | 19.10          | 20.44 | 19.51 | 20.80 | 21.19 |
|                 | 8H   | 17.53            | 18.81 | 17.95 | 19.20 | 19.60 | 19.50          | 20.78 | 19.92 | 21.17 | 21.57 |
|                 | 12H  | 17.62            | 18.85 | 18.05 | 19.23 | 19.66 | 19.86          | 21.09 | 20.29 | 21.47 | 21.90 |
| 4H              | 2H   | 15.14            | 16.59 | 15.54 | 16.93 | 17.31 | 15.66          | 17.11 | 16.06 | 17.45 | 17.83 |
|                 | 3H   | 17.23            | 18.45 | 17.64 | 18.85 | 19.25 | 18.12          | 19.34 | 18.53 | 19.74 | 20.14 |
|                 | 4H   | 18.05            | 19.16 | 18.48 | 19.57 | 20.01 | 19.25          | 20.36 | 19.68 | 20.77 | 21.21 |
|                 | 6H   | 18.67            | 19.65 | 19.13 | 20.09 | 20.54 | 20.32          | 21.30 | 20.77 | 21.74 | 22.19 |
|                 | 8H   | 18.87            | 19.79 | 19.33 | 20.23 | 20.69 | 20.81          | 21.73 | 21.27 | 22.17 | 22.63 |
|                 | 12H  | 19.01            | 19.83 | 19.49 | 20.31 | 20.77 | 21.26          | 22.09 | 21.74 | 22.56 | 23.03 |
| 8H              | 4H   | 18.56            | 19.47 | 19.02 | 19.91 | 20.38 | 19.59          | 20.51 | 20.05 | 20.95 | 21.41 |
|                 | 6H   | 19.34            | 20.11 | 19.83 | 20.60 | 21.07 | 20.84          | 21.61 | 21.33 | 22.10 | 22.57 |
|                 | 8H   | 19.63            | 20.32 | 20.13 | 20.82 | 21.30 | 21.47          | 22.16 | 21.97 | 22.66 | 23.14 |
|                 | 12H  | 19.84            | 20.46 | 20.35 | 20.95 | 21.50 | 22.08          | 22.69 | 22.58 | 23.18 | 23.74 |
| 12H             | 4H   | 18.67            | 19.49 | 19.14 | 19.97 | 20.43 | 19.63          | 20.46 | 20.11 | 20.93 | 21.40 |
|                 | 6H   | 19.51            | 20.20 | 20.02 | 20.71 | 21.19 | 20.92          | 21.61 | 21.42 | 22.11 | 22.60 |
|                 | 8H   | 19.88            | 20.49 | 20.38 | 20.98 | 21.54 | 21.62          | 22.24 | 22.13 | 22.72 | 23.28 |