

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: P1588630

Luminaire Tested: 24CZSP-A-43HE-L950-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588630  
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: 24CZSP-A-43HE-L950-S  
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 4000 lumens, 90CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

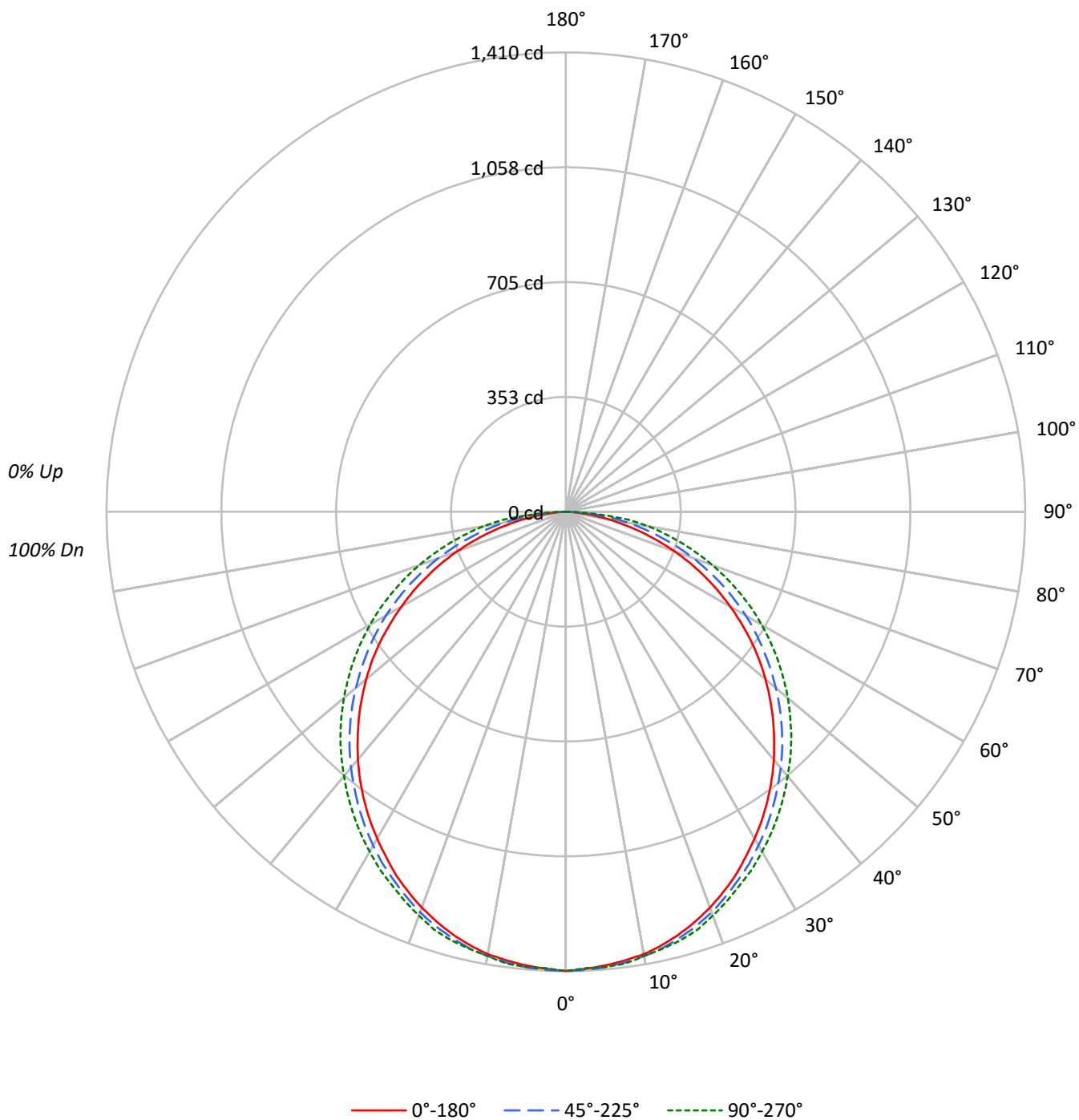
Lumens per Lamp: N/A  
Luminaire Lumens: 4115.0 lumens  
Efficiency: N/A  
Efficacy: 139.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.5  
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  | 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°  | 2159 | 2159 | 2159 |
| 5°  | 2149 | 2157 | 2156 |
| 10° | 2144 | 2154 | 2153 |
| 15° | 2129 | 2146 | 2159 |
| 20° | 2107 | 2133 | 2150 |
| 25° | 2081 | 2110 | 2136 |
| 30° | 2049 | 2092 | 2130 |
| 35° | 2019 | 2072 | 2124 |
| 40° | 1986 | 2051 | 2118 |
| 45° | 1948 | 2030 | 2120 |
| 50° | 1906 | 2005 | 2119 |
| 55° | 1857 | 1977 | 2122 |
| 60° | 1787 | 1956 | 2127 |
| 65° | 1705 | 1918 | 2134 |
| 70° | 1589 | 1864 | 2143 |
| 75° | 1416 | 1790 | 2164 |
| 80° | 1170 | 1704 | 2269 |
| 85° | 761  | 1539 | 1984 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2342 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 133.3  | 3.2       |
| 10°-20°   | 381.7  | 9.3       |
| 20°-30°   | 575.7  | 14.0      |
| 30°-40°   | 693.4  | 16.8      |
| 40°-50°   | 724.1  | 17.6      |
| 50°-60°   | 665.0  | 16.2      |
| 60°-70°   | 523.8  | 12.7      |
| 70°-80°   | 321.3  | 7.8       |
| 80°-90°   | 96.7   | 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°    | 1090.7 | 26.5      |
| 0°-40°    | 1784.0 | 43.4      |
| 0°-60°    | 3173.2 | 77.1      |
| 0°-90°    | 4115.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4115.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1410 | 1410  | 1410 | 1410  | 1410 |      |
| 5°  | 1398 | 1400  | 1403 | 1408  | 1402 | 133  |
| 15° | 1343 | 1345  | 1354 | 1362  | 1362 | 379  |
| 25° | 1232 | 1234  | 1249 | 1264  | 1264 | 567  |
| 35° | 1080 | 1085  | 1108 | 1130  | 1136 | 675  |
| 45° | 899  | 909   | 937  | 970   | 979  | 693  |
| 55° | 695  | 708   | 740  | 782   | 795  | 621  |
| 65° | 470  | 487   | 529  | 573   | 589  | 465  |
| 75° | 239  | 258   | 302  | 350   | 366  | 254  |
| 85° | 43   | 60    | 88   | 111   | 113  | 57   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1409.5 | 1409.5 | 1409.5 | 1409.5 | 1409.5 |
| 2.5°  | 1404.1 | 1406.8 | 1407.7 | 1408.6 | 1402.3 |
| 5°    | 1397.8 | 1399.6 | 1403.2 | 1407.7 | 1402.3 |
| 7.5°  | 1388.7 | 1390.5 | 1395.1 | 1401.4 | 1398.7 |
| 10°   | 1378.8 | 1379.7 | 1385.1 | 1389.6 | 1384.2 |
| 12.5° | 1362.5 | 1365.3 | 1371.6 | 1375.2 | 1373.4 |
| 15°   | 1342.7 | 1345.4 | 1353.5 | 1361.6 | 1361.6 |
| 17.5° | 1319.2 | 1322.8 | 1332.7 | 1343.6 | 1344.5 |
| 20°   | 1293.0 | 1295.7 | 1308.4 | 1319.2 | 1319.2 |
| 22.5° | 1263.2 | 1266.8 | 1279.5 | 1291.2 | 1293.0 |
| 25°   | 1231.6 | 1234.3 | 1248.8 | 1264.1 | 1264.1 |
| 27.5° | 1194.6 | 1200.0 | 1218.1 | 1233.4 | 1237.0 |
| 30°   | 1158.5 | 1163.0 | 1182.9 | 1201.8 | 1204.5 |
| 32.5° | 1120.6 | 1126.0 | 1146.7 | 1167.5 | 1172.0 |
| 35°   | 1079.9 | 1085.3 | 1107.9 | 1130.5 | 1135.9 |
| 37.5° | 1037.5 | 1043.8 | 1067.3 | 1093.5 | 1098.9 |
| 40°   | 993.2  | 1000.5 | 1025.7 | 1053.7 | 1059.2 |
| 42.5° | 946.3  | 956.2  | 983.3  | 1012.2 | 1020.3 |
| 45°   | 899.3  | 909.3  | 937.3  | 969.8  | 978.8  |
| 47.5° | 849.7  | 861.4  | 890.3  | 924.6  | 934.5  |
| 50°   | 800.0  | 811.7  | 841.5  | 878.6  | 889.4  |
| 52.5° | 749.4  | 761.2  | 791.9  | 830.7  | 842.4  |
| 55°   | 695.3  | 707.9  | 740.4  | 782.0  | 794.6  |
| 57.5° | 639.3  | 655.5  | 689.9  | 732.3  | 744.9  |
| 60°   | 583.3  | 599.6  | 638.4  | 679.9  | 694.4  |
| 62.5° | 528.2  | 543.6  | 583.3  | 627.5  | 642.9  |
| 65°   | 470.4  | 486.7  | 529.1  | 573.4  | 588.7  |
| 67.5° | 413.5  | 429.8  | 472.2  | 518.3  | 534.5  |
| 70°   | 354.9  | 372.9  | 416.3  | 462.3  | 478.6  |
| 72.5° | 296.2  | 315.1  | 359.4  | 406.3  | 421.7  |
| 75°   | 239.3  | 258.2  | 302.5  | 350.3  | 365.7  |
| 77.5° | 183.3  | 204.1  | 247.4  | 296.2  | 310.6  |
| 80°   | 132.7  | 152.6  | 193.2  | 241.1  | 257.3  |
| 82.5° | 84.9   | 102.0  | 142.7  | 187.8  | 199.6  |
| 85°   | 43.3   | 59.6   | 87.6   | 111.1  | 112.9  |
| 87.5° | 13.5   | 19.0   | 28.9   | 43.3   | 44.2   |
| 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 | 14.15            | 15.81 | 14.52 | 16.13 | 16.44 | 14.98          | 16.64 | 15.35 | 16.96 | 17.27 |
|                 | 3H   | 15.91            | 17.41 | 16.28 | 17.74 | 18.10 | 17.10          | 18.61 | 17.47 | 18.93 | 19.29 |
|                 | 4H   | 16.53            | 17.95 | 16.92 | 18.30 | 18.67 | 17.99          | 19.41 | 18.38 | 19.76 | 20.13 |
|                 | 6H   | 16.94            | 18.26 | 17.35 | 18.62 | 19.01 | 18.77          | 20.09 | 19.18 | 20.45 | 20.84 |
|                 | 8H   | 17.04            | 18.31 | 17.47 | 18.70 | 19.09 | 19.09          | 20.35 | 19.51 | 20.74 | 21.14 |
|                 | 12H  | 17.10            | 18.31 | 17.52 | 18.69 | 19.12 | 19.30          | 20.51 | 19.73 | 20.89 | 21.32 |
| 4H              | 2H   | 14.92            | 16.35 | 15.32 | 16.69 | 17.07 | 15.57          | 16.99 | 15.97 | 17.34 | 17.71 |
|                 | 3H   | 16.90            | 18.10 | 17.31 | 18.50 | 18.89 | 17.92          | 19.12 | 18.33 | 19.52 | 19.92 |
|                 | 4H   | 17.64            | 18.72 | 18.07 | 19.14 | 19.57 | 18.98          | 20.06 | 19.41 | 20.48 | 20.91 |
|                 | 6H   | 18.17            | 19.12 | 18.62 | 19.56 | 20.01 | 19.93          | 20.88 | 20.38 | 21.32 | 21.77 |
|                 | 8H   | 18.31            | 19.20 | 18.77 | 19.65 | 20.11 | 20.33          | 21.22 | 20.79 | 21.66 | 22.12 |
|                 | 12H  | 18.40            | 19.20 | 18.88 | 19.67 | 20.14 | 20.60          | 21.41 | 21.08 | 21.88 | 22.35 |
| 8H              | 4H   | 18.10            | 18.99 | 18.56 | 19.43 | 19.89 | 19.27          | 20.16 | 19.72 | 20.60 | 21.06 |
|                 | 6H   | 18.76            | 19.50 | 19.25 | 19.99 | 20.46 | 20.38          | 21.12 | 20.87 | 21.61 | 22.08 |
|                 | 8H   | 18.97            | 19.64 | 19.48 | 20.14 | 20.63 | 20.89          | 21.56 | 21.40 | 22.06 | 22.55 |
|                 | 12H  | 19.11            | 19.70 | 19.61 | 20.19 | 20.75 | 21.28          | 21.87 | 21.78 | 22.36 | 22.92 |
| 12H             | 4H   | 18.19            | 18.99 | 18.66 | 19.46 | 19.93 | 19.29          | 20.09 | 19.77 | 20.57 | 21.04 |
|                 | 6H   | 18.89            | 19.56 | 19.40 | 20.06 | 20.55 | 20.42          | 21.09 | 20.93 | 21.60 | 22.08 |
|                 | 8H   | 19.17            | 19.76 | 19.67 | 20.25 | 20.81 | 21.00          | 21.60 | 21.51 | 22.08 | 22.64 |