

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: P1588900

Luminaire Tested: 24CZSP-A-80-L850-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588900  
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-80-L850-S  
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 8000 lumens, 80CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

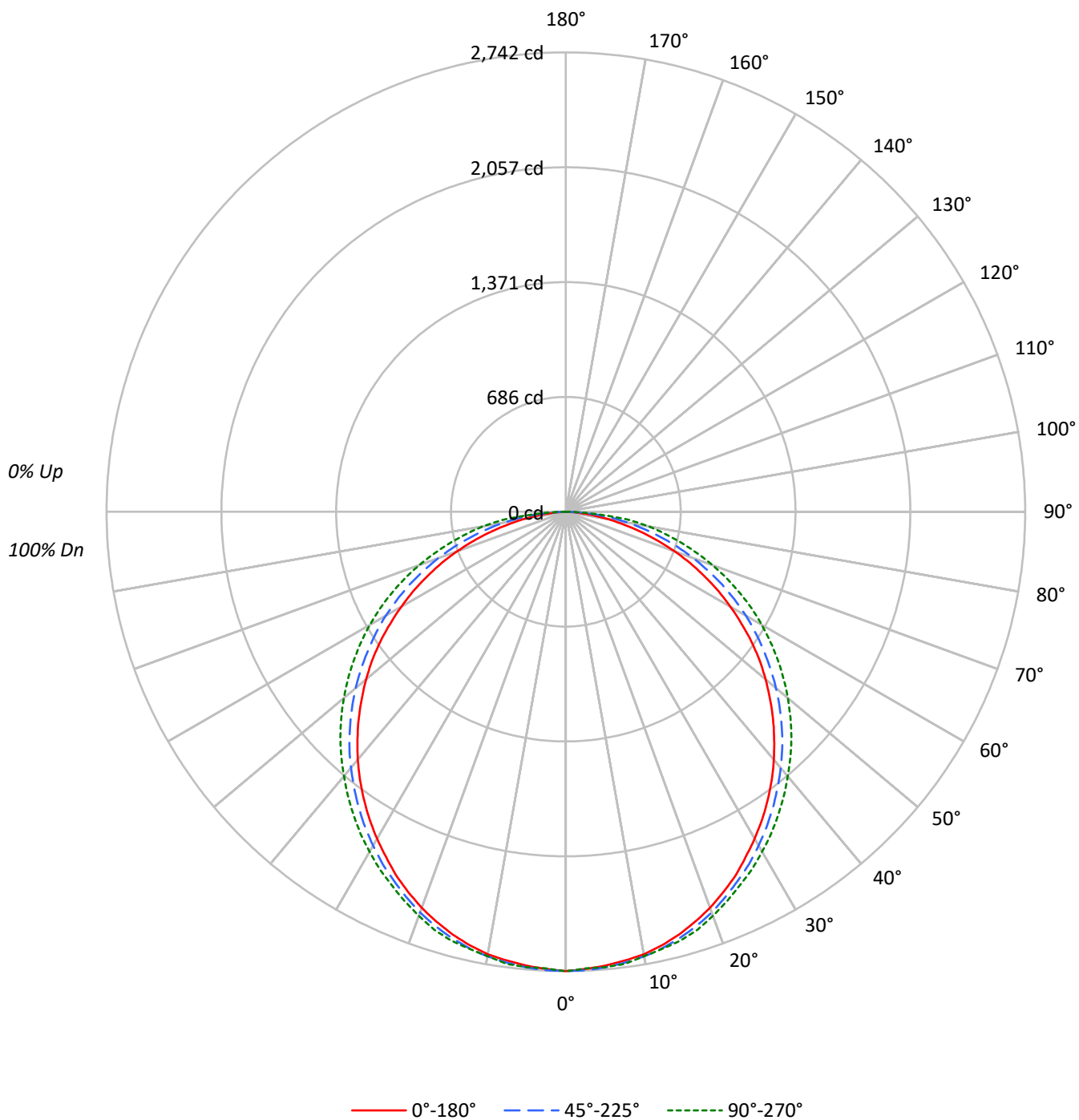
Lumens per Lamp: N/A  
Luminaire Lumens: 8005.0 lumens  
Efficiency: N/A  
Efficacy: 127.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 62.7  
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 | 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°  | 4200 | 4200 | 4200 |
| 5°  | 4181 | 4197 | 4194 |
| 10° | 4172 | 4191 | 4188 |
| 15° | 4142 | 4175 | 4200 |
| 20° | 4100 | 4148 | 4183 |
| 25° | 4049 | 4105 | 4156 |
| 30° | 3986 | 4069 | 4144 |
| 35° | 3928 | 4030 | 4132 |
| 40° | 3863 | 3990 | 4120 |
| 45° | 3789 | 3949 | 4124 |
| 50° | 3708 | 3901 | 4123 |
| 55° | 3612 | 3846 | 4127 |
| 60° | 3476 | 3804 | 4138 |
| 65° | 3316 | 3730 | 4151 |
| 70° | 3091 | 3626 | 4169 |
| 75° | 2755 | 3482 | 4210 |
| 80° | 2277 | 3316 | 4415 |
| 85° | 1481 | 2995 | 3859 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 4555 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 259.3  | 3.2       |
| 10°-20°   | 742.5  | 9.3       |
| 20°-30°   | 1119.8 | 14.0      |
| 30°-40°   | 1348.8 | 16.8      |
| 40°-50°   | 1408.7 | 17.6      |
| 50°-60°   | 1293.7 | 16.2      |
| 60°-70°   | 1018.9 | 12.7      |
| 70°-80°   | 625.1  | 7.8       |
| 80°-90°   | 188.1  | 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°    | 2121.7 | 26.5      |
| 0°-40°    | 3470.5 | 43.4      |
| 0°-60°    | 6172.8 | 77.1      |
| 0°-90°    | 8005.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8005.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2742 | 2742  | 2742 | 2742  | 2742 |      |
| 5°  | 2719 | 2723  | 2730 | 2738  | 2728 | 258  |
| 15° | 2612 | 2617  | 2633 | 2649  | 2649 | 737  |
| 25° | 2396 | 2401  | 2429 | 2459  | 2459 | 1103 |
| 35° | 2101 | 2111  | 2155 | 2199  | 2210 | 1314 |
| 45° | 1750 | 1769  | 1823 | 1886  | 1904 | 1349 |
| 55° | 1352 | 1377  | 1440 | 1521  | 1546 | 1207 |
| 65° | 915  | 947   | 1029 | 1115  | 1145 | 905  |
| 75° | 466  | 502   | 588  | 682   | 711  | 494  |
| 85° | 84   | 116   | 170  | 216   | 220  | 110  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2741.9 | 2741.9 | 2741.9 | 2741.9 | 2741.9 |
| 2.5°  | 2731.4 | 2736.7 | 2738.4 | 2740.2 | 2727.9 |
| 5°    | 2719.1 | 2722.6 | 2729.6 | 2738.4 | 2727.9 |
| 7.5°  | 2701.5 | 2705.0 | 2713.8 | 2726.1 | 2720.8 |
| 10°   | 2682.2 | 2684.0 | 2694.5 | 2703.3 | 2692.7 |
| 12.5° | 2650.6 | 2655.9 | 2668.2 | 2675.2 | 2671.7 |
| 15°   | 2611.9 | 2617.2 | 2633.0 | 2648.8 | 2648.8 |
| 17.5° | 2566.3 | 2573.3 | 2592.6 | 2613.7 | 2615.5 |
| 20°   | 2515.3 | 2520.6 | 2545.2 | 2566.3 | 2566.3 |
| 22.5° | 2457.4 | 2464.4 | 2489.0 | 2511.8 | 2515.3 |
| 25°   | 2395.9 | 2401.2 | 2429.3 | 2459.1 | 2459.1 |
| 27.5° | 2323.9 | 2334.4 | 2369.5 | 2399.4 | 2406.4 |
| 30°   | 2253.6 | 2262.4 | 2301.0 | 2337.9 | 2343.2 |
| 32.5° | 2179.8 | 2190.4 | 2230.8 | 2271.2 | 2280.0 |
| 35°   | 2100.8 | 2111.3 | 2155.2 | 2199.2 | 2209.7 |
| 37.5° | 2018.2 | 2030.5 | 2076.2 | 2127.1 | 2137.7 |
| 40°   | 1932.2 | 1946.2 | 1995.4 | 2049.9 | 2060.4 |
| 42.5° | 1840.8 | 1860.2 | 1912.8 | 1969.1 | 1984.9 |
| 45°   | 1749.5 | 1768.8 | 1823.3 | 1886.5 | 1904.1 |
| 47.5° | 1652.9 | 1675.7 | 1731.9 | 1798.7 | 1818.0 |
| 50°   | 1556.3 | 1579.1 | 1637.1 | 1709.1 | 1730.2 |
| 52.5° | 1457.9 | 1480.7 | 1540.5 | 1616.0 | 1638.8 |
| 55°   | 1352.5 | 1377.1 | 1440.3 | 1521.1 | 1545.7 |
| 57.5° | 1243.6 | 1275.2 | 1342.0 | 1424.5 | 1449.1 |
| 60°   | 1134.7 | 1166.3 | 1241.9 | 1322.7 | 1350.8 |
| 62.5° | 1027.6 | 1057.4 | 1134.7 | 1220.8 | 1250.6 |
| 65°   | 915.1  | 946.8  | 1029.3 | 1115.4 | 1145.3 |
| 67.5° | 804.5  | 836.1  | 918.7  | 1008.2 | 1039.9 |
| 70°   | 690.3  | 725.4  | 809.8  | 899.3  | 931.0  |
| 72.5° | 576.1  | 613.0  | 699.1  | 790.4  | 820.3  |
| 75°   | 465.5  | 502.4  | 588.4  | 681.5  | 711.4  |
| 77.5° | 356.6  | 397.0  | 481.3  | 576.1  | 604.2  |
| 80°   | 258.2  | 296.9  | 375.9  | 469.0  | 500.6  |
| 82.5° | 165.1  | 198.5  | 277.5  | 365.4  | 388.2  |
| 85°   | 84.3   | 115.9  | 170.4  | 216.1  | 219.6  |
| 87.5° | 26.3   | 36.9   | 56.2   | 84.3   | 86.1   |
| 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 | 16.46            | 18.13 | 16.83 | 18.44 | 18.75 | 17.29          | 18.96 | 17.66 | 19.27 | 19.58 |
|                 | 3H   | 18.22            | 19.73 | 18.60 | 20.05 | 20.41 | 19.41          | 20.92 | 19.79 | 21.24 | 21.60 |
|                 | 4H   | 18.84            | 20.26 | 19.24 | 20.61 | 20.98 | 20.30          | 21.72 | 20.70 | 22.07 | 22.44 |
|                 | 6H   | 19.25            | 20.57 | 19.66 | 20.93 | 21.32 | 21.08          | 22.40 | 21.49 | 22.76 | 23.15 |
|                 | 8H   | 19.36            | 20.62 | 19.78 | 21.01 | 21.41 | 21.40          | 22.66 | 21.82 | 23.05 | 23.45 |
|                 | 12H  | 19.41            | 20.62 | 19.84 | 21.00 | 21.43 | 21.61          | 22.82 | 22.04 | 23.20 | 23.63 |
| 4H              | 2H   | 17.24            | 18.66 | 17.63 | 19.00 | 19.38 | 17.88          | 19.30 | 18.28 | 19.65 | 20.03 |
|                 | 3H   | 19.21            | 20.41 | 19.62 | 20.81 | 21.21 | 20.24          | 21.43 | 20.65 | 21.83 | 22.23 |
|                 | 4H   | 19.95            | 21.04 | 20.38 | 21.45 | 21.88 | 21.29          | 22.38 | 21.72 | 22.79 | 23.22 |
|                 | 6H   | 20.48            | 21.43 | 20.93 | 21.87 | 22.32 | 22.24          | 23.19 | 22.69 | 23.63 | 24.09 |
|                 | 8H   | 20.62            | 21.52 | 21.08 | 21.96 | 22.42 | 22.64          | 23.53 | 23.10 | 23.97 | 24.44 |
|                 | 12H  | 20.71            | 21.51 | 21.19 | 21.99 | 22.45 | 22.92          | 23.72 | 23.39 | 24.19 | 24.66 |
| 8H              | 4H   | 20.41            | 21.30 | 20.87 | 21.74 | 22.21 | 21.58          | 22.47 | 22.04 | 22.91 | 23.38 |
|                 | 6H   | 21.07            | 21.81 | 21.56 | 22.30 | 22.77 | 22.69          | 23.43 | 23.18 | 23.92 | 24.39 |
|                 | 8H   | 21.28            | 21.95 | 21.79 | 22.45 | 22.94 | 23.20          | 23.87 | 23.71 | 24.37 | 24.86 |
|                 | 12H  | 21.42            | 22.01 | 21.92 | 22.50 | 23.06 | 23.59          | 24.18 | 24.09 | 24.67 | 25.23 |
| 12H             | 4H   | 20.50            | 21.30 | 20.98 | 21.78 | 22.24 | 21.60          | 22.41 | 22.08 | 22.88 | 23.35 |
|                 | 6H   | 21.20            | 21.87 | 21.71 | 22.38 | 22.86 | 22.74          | 23.41 | 23.24 | 23.91 | 24.40 |
|                 | 8H   | 21.48            | 22.07 | 21.99 | 22.56 | 23.12 | 23.32          | 23.91 | 23.82 | 24.40 | 24.96 |