

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: P1588400

Luminaire Tested: 24CZSP-57HE-L850-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588400  
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-57HE-L850-S  
Description: 2x4 CZSP LED Luminaire, 5000K CCT and 5500 lumens, 80CRI, Smooth Lens  
Light Source: -  
Ballast/Driver: -

**Summary**

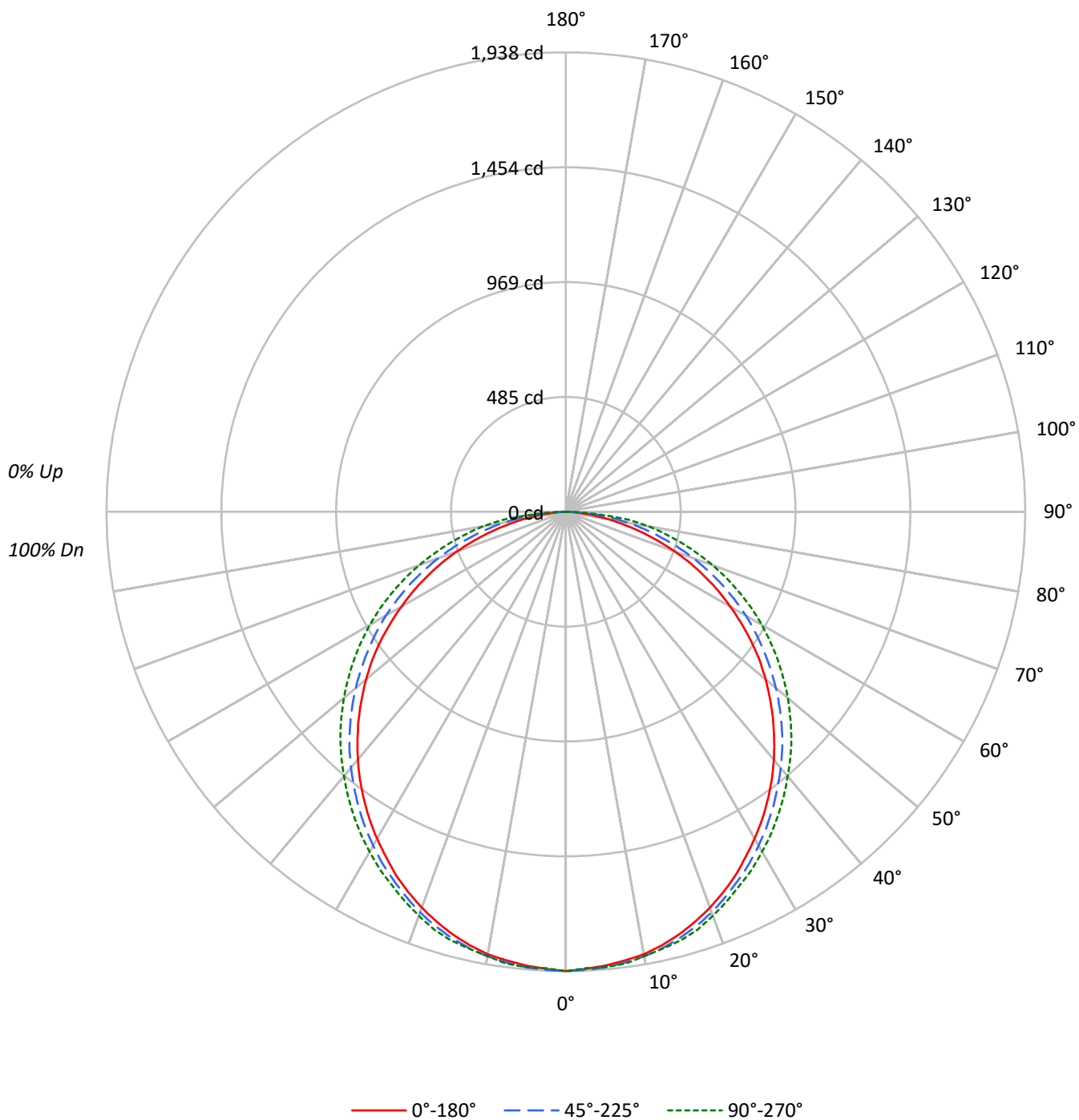
Lumens per Lamp: N/A  
Luminaire Lumens: 5657.0 lumens  
Efficiency: N/A  
Efficacy: 143.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 39.4  
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°  | 2968 | 2968 | 2968 |
| 5°  | 2954 | 2966 | 2964 |
| 10° | 2948 | 2962 | 2959 |
| 15° | 2927 | 2950 | 2968 |
| 20° | 2897 | 2932 | 2956 |
| 25° | 2861 | 2901 | 2937 |
| 30° | 2817 | 2876 | 2929 |
| 35° | 2776 | 2848 | 2920 |
| 40° | 2730 | 2819 | 2911 |
| 45° | 2678 | 2791 | 2915 |
| 50° | 2621 | 2757 | 2913 |
| 55° | 2552 | 2718 | 2917 |
| 60° | 2456 | 2688 | 2924 |
| 65° | 2344 | 2636 | 2933 |
| 70° | 2184 | 2562 | 2946 |
| 75° | 1946 | 2461 | 2975 |
| 80° | 1610 | 2343 | 3121 |
| 85° | 1047 | 2116 | 2727 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3219 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 183.3  | 3.2       |
| 10°-20°   | 524.7  | 9.3       |
| 20°-30°   | 791.4  | 14.0      |
| 30°-40°   | 953.2  | 16.8      |
| 40°-50°   | 995.5  | 17.6      |
| 50°-60°   | 914.2  | 16.2      |
| 60°-70°   | 720.1  | 12.7      |
| 70°-80°   | 441.7  | 7.8       |
| 80°-90°   | 132.9  | 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°    | 1499.4 | 26.5      |
| 0°-40°    | 2452.5 | 43.4      |
| 0°-60°    | 4362.2 | 77.1      |
| 0°-90°    | 5657.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5657.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1938 | 1938  | 1938 | 1938  | 1938 |      |
| 5°  | 1922 | 1924  | 1929 | 1935  | 1928 | 183  |
| 15° | 1846 | 1850  | 1861 | 1872  | 1872 | 521  |
| 25° | 1693 | 1697  | 1717 | 1738  | 1738 | 779  |
| 35° | 1485 | 1492  | 1523 | 1554  | 1562 | 929  |
| 45° | 1236 | 1250  | 1288 | 1333  | 1346 | 953  |
| 55° | 956  | 973   | 1018 | 1075  | 1092 | 853  |
| 65° | 647  | 669   | 727  | 788   | 809  | 640  |
| 75° | 329  | 355   | 416  | 482   | 503  | 349  |
| 85° | 60   | 82    | 120  | 153   | 155  | 78   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1937.7 | 1937.7 | 1937.7 | 1937.7 | 1937.7 |
| 2.5°  | 1930.2 | 1933.9 | 1935.2 | 1936.4 | 1927.7 |
| 5°    | 1921.5 | 1924.0 | 1929.0 | 1935.2 | 1927.7 |
| 7.5°  | 1909.1 | 1911.6 | 1917.8 | 1926.5 | 1922.8 |
| 10°   | 1895.5 | 1896.7 | 1904.2 | 1910.4 | 1902.9 |
| 12.5° | 1873.1 | 1876.8 | 1885.5 | 1890.5 | 1888.0 |
| 15°   | 1845.8 | 1849.5 | 1860.7 | 1871.9 | 1871.9 |
| 17.5° | 1813.5 | 1818.5 | 1832.2 | 1847.1 | 1848.3 |
| 20°   | 1777.5 | 1781.3 | 1798.6 | 1813.5 | 1813.5 |
| 22.5° | 1736.6 | 1741.5 | 1758.9 | 1775.1 | 1777.5 |
| 25°   | 1693.1 | 1696.9 | 1716.7 | 1737.8 | 1737.8 |
| 27.5° | 1642.2 | 1649.7 | 1674.5 | 1695.6 | 1700.6 |
| 30°   | 1592.6 | 1598.8 | 1626.1 | 1652.2 | 1655.9 |
| 32.5° | 1540.5 | 1547.9 | 1576.5 | 1605.0 | 1611.2 |
| 35°   | 1484.6 | 1492.0 | 1523.1 | 1554.1 | 1561.6 |
| 37.5° | 1426.3 | 1434.9 | 1467.2 | 1503.2 | 1510.7 |
| 40°   | 1365.4 | 1375.4 | 1410.1 | 1448.6 | 1456.0 |
| 42.5° | 1300.9 | 1314.5 | 1351.8 | 1391.5 | 1402.7 |
| 45°   | 1236.3 | 1250.0 | 1288.5 | 1333.2 | 1345.6 |
| 47.5° | 1168.1 | 1184.2 | 1223.9 | 1271.1 | 1284.7 |
| 50°   | 1099.8 | 1115.9 | 1156.9 | 1207.8 | 1222.7 |
| 52.5° | 1030.3 | 1046.4 | 1088.6 | 1142.0 | 1158.1 |
| 55°   | 955.8  | 973.2  | 1017.9 | 1075.0 | 1092.3 |
| 57.5° | 878.8  | 901.2  | 948.4  | 1006.7 | 1024.1 |
| 60°   | 801.9  | 824.2  | 877.6  | 934.7  | 954.6  |
| 62.5° | 726.2  | 747.3  | 801.9  | 862.7  | 883.8  |
| 65°   | 646.7  | 669.1  | 727.4  | 788.2  | 809.3  |
| 67.5° | 568.5  | 590.9  | 649.2  | 712.5  | 734.9  |
| 70°   | 487.8  | 512.7  | 572.2  | 635.5  | 657.9  |
| 72.5° | 407.1  | 433.2  | 494.0  | 558.6  | 579.7  |
| 75°   | 328.9  | 355.0  | 415.8  | 481.6  | 502.7  |
| 77.5° | 252.0  | 280.5  | 340.1  | 407.1  | 427.0  |
| 80°   | 182.5  | 209.8  | 265.6  | 331.4  | 353.8  |
| 82.5° | 116.7  | 140.3  | 196.1  | 258.2  | 274.3  |
| 85°   | 59.6   | 81.9   | 120.4  | 152.7  | 155.2  |
| 87.5° | 18.6   | 26.1   | 39.7   | 59.6   | 60.8   |
| 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 | 15.26            | 16.92 | 15.62 | 17.23 | 17.55 | 16.09          | 17.75 | 16.45 | 18.06 | 18.38 |
|                 | 3H   | 17.01            | 18.52 | 17.39 | 18.85 | 19.21 | 18.20          | 19.71 | 18.58 | 20.04 | 20.40 |
|                 | 4H   | 17.63            | 19.05 | 18.03 | 19.40 | 19.78 | 19.09          | 20.52 | 19.49 | 20.86 | 21.24 |
|                 | 6H   | 18.04            | 19.36 | 18.45 | 19.73 | 20.12 | 19.87          | 21.19 | 20.28 | 21.56 | 21.95 |
|                 | 8H   | 18.15            | 19.41 | 18.57 | 19.80 | 20.20 | 20.19          | 21.46 | 20.62 | 21.85 | 22.24 |
|                 | 12H  | 18.20            | 19.41 | 18.63 | 19.79 | 20.22 | 20.41          | 21.62 | 20.83 | 22.00 | 22.43 |
| 4H              | 2H   | 16.03            | 17.45 | 16.43 | 17.80 | 18.17 | 16.68          | 18.10 | 17.07 | 18.45 | 18.82 |
|                 | 3H   | 18.01            | 19.20 | 18.42 | 19.60 | 20.00 | 19.03          | 20.23 | 19.44 | 20.63 | 21.02 |
|                 | 4H   | 18.74            | 19.83 | 19.17 | 20.24 | 20.68 | 20.08          | 21.17 | 20.51 | 21.58 | 22.02 |
|                 | 6H   | 19.27            | 20.22 | 19.72 | 20.66 | 21.12 | 21.04          | 21.99 | 21.49 | 22.43 | 22.88 |
|                 | 8H   | 19.42            | 20.31 | 19.88 | 20.75 | 21.22 | 21.43          | 22.32 | 21.89 | 22.77 | 23.23 |
|                 | 12H  | 19.50            | 20.31 | 19.98 | 20.78 | 21.25 | 21.71          | 22.51 | 22.19 | 22.99 | 23.46 |
| 8H              | 4H   | 19.20            | 20.09 | 19.66 | 20.54 | 21.00 | 20.37          | 21.26 | 20.83 | 21.71 | 22.17 |
|                 | 6H   | 19.86            | 20.61 | 20.36 | 21.09 | 21.57 | 21.48          | 22.23 | 21.98 | 22.71 | 23.19 |
|                 | 8H   | 20.07            | 20.74 | 20.58 | 21.25 | 21.73 | 22.00          | 22.66 | 22.50 | 23.17 | 23.65 |
|                 | 12H  | 20.21            | 20.81 | 20.72 | 21.29 | 21.85 | 22.38          | 22.97 | 22.89 | 23.46 | 24.02 |
| 12H             | 4H   | 19.29            | 20.10 | 19.77 | 20.57 | 21.04 | 20.40          | 21.20 | 20.87 | 21.67 | 22.14 |
|                 | 6H   | 20.00            | 20.67 | 20.50 | 21.17 | 21.65 | 21.53          | 22.20 | 22.04 | 22.70 | 23.19 |
|                 | 8H   | 20.27            | 20.87 | 20.78 | 21.36 | 21.91 | 22.11          | 22.70 | 22.61 | 23.19 | 23.75 |