

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: P1588895

Luminaire Tested: 24CZSP-A-80-L835

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588895  
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-80-L835  
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 8000 lumens, 80CRI, Ribbed Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

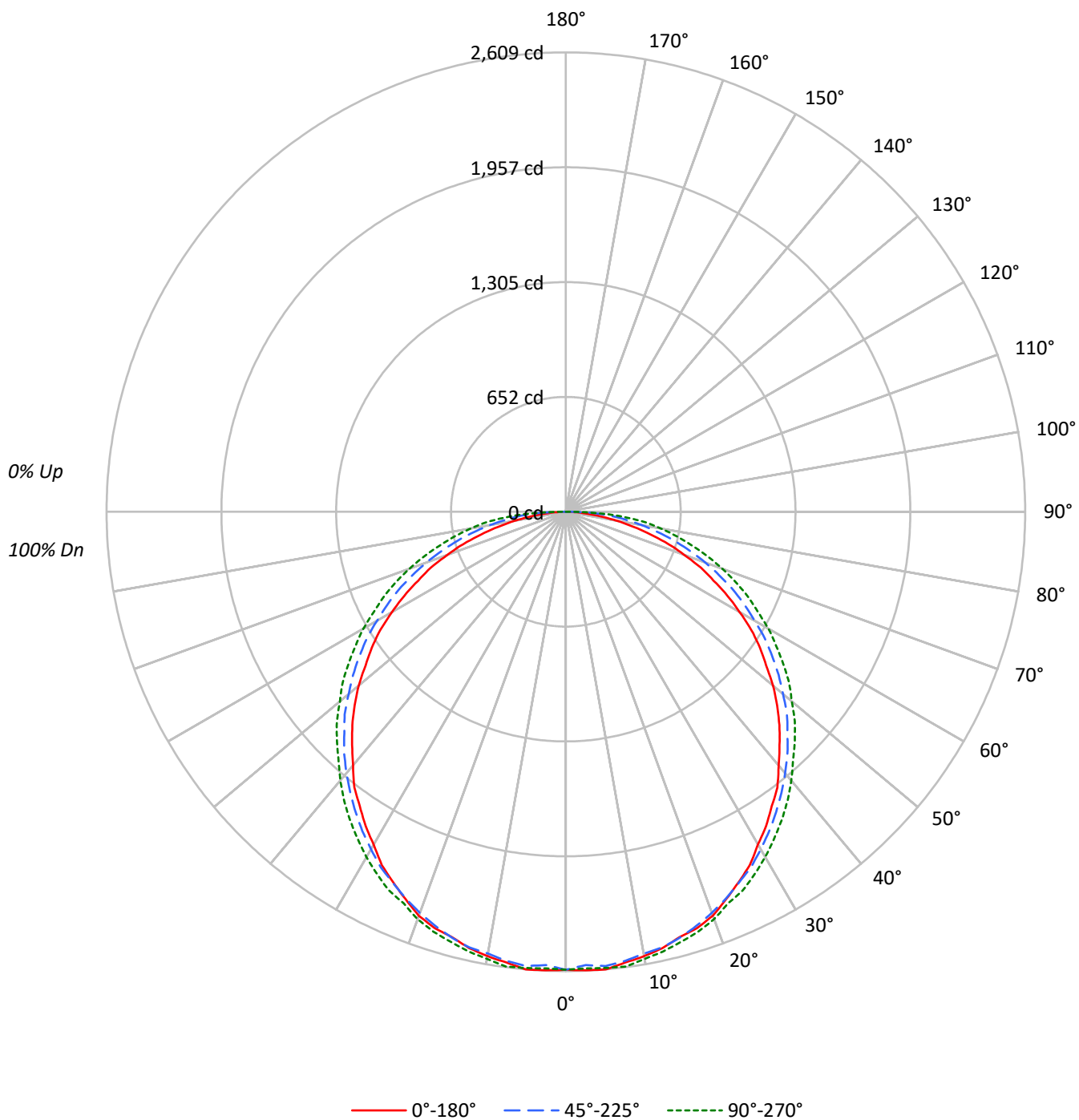
Lumens per Lamp: N/A  
Luminaire Lumens: 7939.0 lumens  
Efficiency: N/A  
Efficacy: 126.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 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  | 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 | 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°  | 3984 | 3984 | 3984 |
| 5°  | 4011 | 3981 | 3999 |
| 10° | 3986 | 3962 | 4010 |
| 15° | 3964 | 3970 | 4010 |
| 20° | 3979 | 3951 | 4013 |
| 25° | 3923 | 3930 | 4013 |
| 30° | 3860 | 3914 | 4005 |
| 35° | 3815 | 3893 | 3996 |
| 40° | 3760 | 3874 | 3984 |
| 45° | 3715 | 3855 | 3982 |
| 50° | 3661 | 3837 | 3991 |
| 55° | 3595 | 3823 | 4026 |
| 60° | 3495 | 3798 | 4071 |
| 65° | 3356 | 3797 | 4134 |
| 70° | 3201 | 3772 | 4232 |
| 75° | 2948 | 3780 | 4388 |
| 80° | 2583 | 3857 | 4830 |
| 85° | 1972 | 4444 | 5780 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 6408 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 247.0  | 3.1       |
| 10°-20°   | 709.9  | 8.9       |
| 20°-30°   | 1078.4 | 13.6      |
| 30°-40°   | 1306.3 | 16.5      |
| 40°-50°   | 1374.3 | 17.3      |
| 50°-60°   | 1277.8 | 16.1      |
| 60°-70°   | 1028.9 | 13.0      |
| 70°-80°   | 666.5  | 8.4       |
| 80°-90°   | 249.9  | 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       |
| 0°-30°    | 2035.2 | 25.6      |
| 0°-40°    | 3341.5 | 42.1      |
| 0°-60°    | 5993.7 | 75.5      |
| 0°-90°    | 7939.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7939.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2601 | 2601  | 2601 | 2601  | 2601 |      |
| 5°  | 2609 | 2605  | 2590 | 2605  | 2601 | 247  |
| 15° | 2500 | 2510  | 2504 | 2534  | 2529 | 708  |
| 25° | 2322 | 2320  | 2325 | 2365  | 2375 | 1070 |
| 35° | 2040 | 2055  | 2082 | 2118  | 2137 | 1278 |
| 45° | 1715 | 1738  | 1780 | 1818  | 1839 | 1322 |
| 55° | 1346 | 1380  | 1432 | 1489  | 1508 | 1201 |
| 65° | 926  | 968   | 1048 | 1110  | 1141 | 921  |
| 75° | 498  | 548   | 639  | 713   | 742  | 529  |
| 85° | 112  | 165   | 253  | 316   | 329  | 138  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2601.0 | 2601.0 | 2601.0 | 2601.0 | 2601.0 |
| 2.5°  | 2606.7 | 2606.7 | 2576.3 | 2608.6 | 2595.3 |
| 5°    | 2608.6 | 2604.8 | 2589.6 | 2604.8 | 2601.0 |
| 7.5°  | 2582.0 | 2585.8 | 2572.5 | 2591.5 | 2604.8 |
| 10°   | 2563.0 | 2566.8 | 2547.8 | 2578.2 | 2578.2 |
| 12.5° | 2538.3 | 2542.1 | 2534.5 | 2563.0 | 2557.3 |
| 15°   | 2500.2 | 2509.7 | 2504.0 | 2534.5 | 2528.7 |
| 17.5° | 2479.3 | 2471.7 | 2466.0 | 2488.8 | 2500.2 |
| 20°   | 2441.3 | 2424.2 | 2424.2 | 2454.6 | 2462.2 |
| 22.5° | 2380.4 | 2374.7 | 2376.6 | 2414.7 | 2407.1 |
| 25°   | 2321.5 | 2319.6 | 2325.3 | 2365.2 | 2374.7 |
| 27.5° | 2262.6 | 2258.8 | 2275.9 | 2313.9 | 2321.5 |
| 30°   | 2182.7 | 2190.3 | 2213.1 | 2255.0 | 2264.5 |
| 32.5° | 2116.2 | 2129.5 | 2150.4 | 2190.3 | 2201.7 |
| 35°   | 2040.1 | 2055.3 | 2081.9 | 2118.1 | 2137.1 |
| 37.5° | 1973.6 | 1983.1 | 2011.6 | 2045.8 | 2068.6 |
| 40°   | 1880.4 | 1905.1 | 1937.4 | 1986.9 | 1992.6 |
| 42.5° | 1796.7 | 1821.5 | 1863.3 | 1916.5 | 1910.8 |
| 45°   | 1715.0 | 1737.8 | 1779.6 | 1817.7 | 1838.6 |
| 47.5° | 1627.5 | 1648.4 | 1703.6 | 1749.2 | 1764.4 |
| 50°   | 1536.3 | 1562.9 | 1610.4 | 1657.9 | 1675.1 |
| 52.5° | 1433.6 | 1462.1 | 1523.0 | 1574.3 | 1599.0 |
| 55°   | 1346.1 | 1380.4 | 1431.7 | 1488.7 | 1507.7 |
| 57.5° | 1249.2 | 1277.7 | 1340.4 | 1397.5 | 1416.5 |
| 60°   | 1140.8 | 1175.0 | 1239.7 | 1300.5 | 1329.0 |
| 62.5° | 1036.2 | 1074.2 | 1142.7 | 1205.4 | 1228.2 |
| 65°   | 925.9  | 967.8  | 1047.6 | 1110.4 | 1140.8 |
| 67.5° | 830.9  | 865.1  | 943.1  | 1013.4 | 1045.7 |
| 70°   | 714.9  | 760.5  | 842.3  | 920.2  | 945.0  |
| 72.5° | 612.2  | 652.2  | 737.7  | 815.7  | 846.1  |
| 75°   | 498.1  | 547.6  | 638.8  | 713.0  | 741.5  |
| 77.5° | 393.6  | 444.9  | 536.2  | 614.1  | 646.4  |
| 80°   | 292.8  | 342.2  | 437.3  | 517.2  | 547.6  |
| 82.5° | 197.7  | 247.2  | 342.2  | 420.2  | 454.4  |
| 85°   | 112.2  | 165.4  | 252.9  | 315.6  | 328.9  |
| 87.5° | 49.4   | 95.1   | 142.6  | 171.1  | 182.5  |
| 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 | 16.49            | 18.17 | 16.85 | 18.48 | 18.80 | 17.16          | 18.84 | 17.53 | 19.16 | 19.47 |
|                 | 3H   | 18.34            | 19.87 | 18.72 | 20.19 | 20.55 | 19.38          | 20.91 | 19.76 | 21.23 | 21.59 |
|                 | 4H   | 19.03            | 20.47 | 19.42 | 20.82 | 21.19 | 20.34          | 21.79 | 20.74 | 22.13 | 22.51 |
|                 | 6H   | 19.52            | 20.86 | 19.93 | 21.22 | 21.61 | 21.23          | 22.58 | 21.64 | 22.94 | 23.33 |
|                 | 8H   | 19.67            | 20.95 | 20.09 | 21.34 | 21.74 | 21.64          | 22.92 | 22.06 | 23.31 | 23.71 |
|                 | 12H  | 19.76            | 20.99 | 20.18 | 21.37 | 21.80 | 22.00          | 23.23 | 22.43 | 23.61 | 24.04 |
| 4H              | 2H   | 17.28            | 18.72 | 17.68 | 19.07 | 19.45 | 17.80          | 19.24 | 18.20 | 19.59 | 19.96 |
|                 | 3H   | 19.37            | 20.59 | 19.78 | 20.98 | 21.38 | 20.26          | 21.48 | 20.67 | 21.88 | 22.28 |
|                 | 4H   | 20.19            | 21.30 | 20.62 | 21.71 | 22.14 | 21.39          | 22.50 | 21.82 | 22.91 | 23.34 |
|                 | 6H   | 20.81            | 21.79 | 21.26 | 22.23 | 22.68 | 22.46          | 23.43 | 22.91 | 23.87 | 24.33 |
|                 | 8H   | 21.01            | 21.93 | 21.47 | 22.37 | 22.83 | 22.95          | 23.86 | 23.41 | 24.31 | 24.77 |
|                 | 12H  | 21.14            | 21.97 | 21.62 | 22.44 | 22.91 | 23.40          | 24.23 | 23.88 | 24.70 | 25.17 |
| 8H              | 4H   | 20.70            | 21.61 | 21.15 | 22.05 | 22.52 | 21.73          | 22.65 | 22.19 | 23.09 | 23.55 |
|                 | 6H   | 21.48            | 22.25 | 21.97 | 22.73 | 23.21 | 22.98          | 23.75 | 23.47 | 24.23 | 24.71 |
|                 | 8H   | 21.76            | 22.45 | 22.27 | 22.96 | 23.44 | 23.60          | 24.29 | 24.11 | 24.80 | 25.28 |
|                 | 12H  | 21.98            | 22.59 | 22.49 | 23.08 | 23.64 | 24.21          | 24.83 | 24.72 | 25.32 | 25.87 |
| 12H             | 4H   | 20.80            | 21.63 | 21.28 | 22.10 | 22.57 | 21.77          | 22.60 | 22.25 | 23.07 | 23.54 |
|                 | 6H   | 21.65            | 22.34 | 22.15 | 22.84 | 23.33 | 23.05          | 23.75 | 23.56 | 24.25 | 24.73 |
|                 | 8H   | 22.02            | 22.63 | 22.52 | 23.12 | 23.68 | 23.76          | 24.37 | 24.26 | 24.86 | 25.42 |