

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: P1588734

Luminaire Tested: 24CZSP-A-57HE-L835-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588734  
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-57HE-L835-S  
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 5500 lumens, 80CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

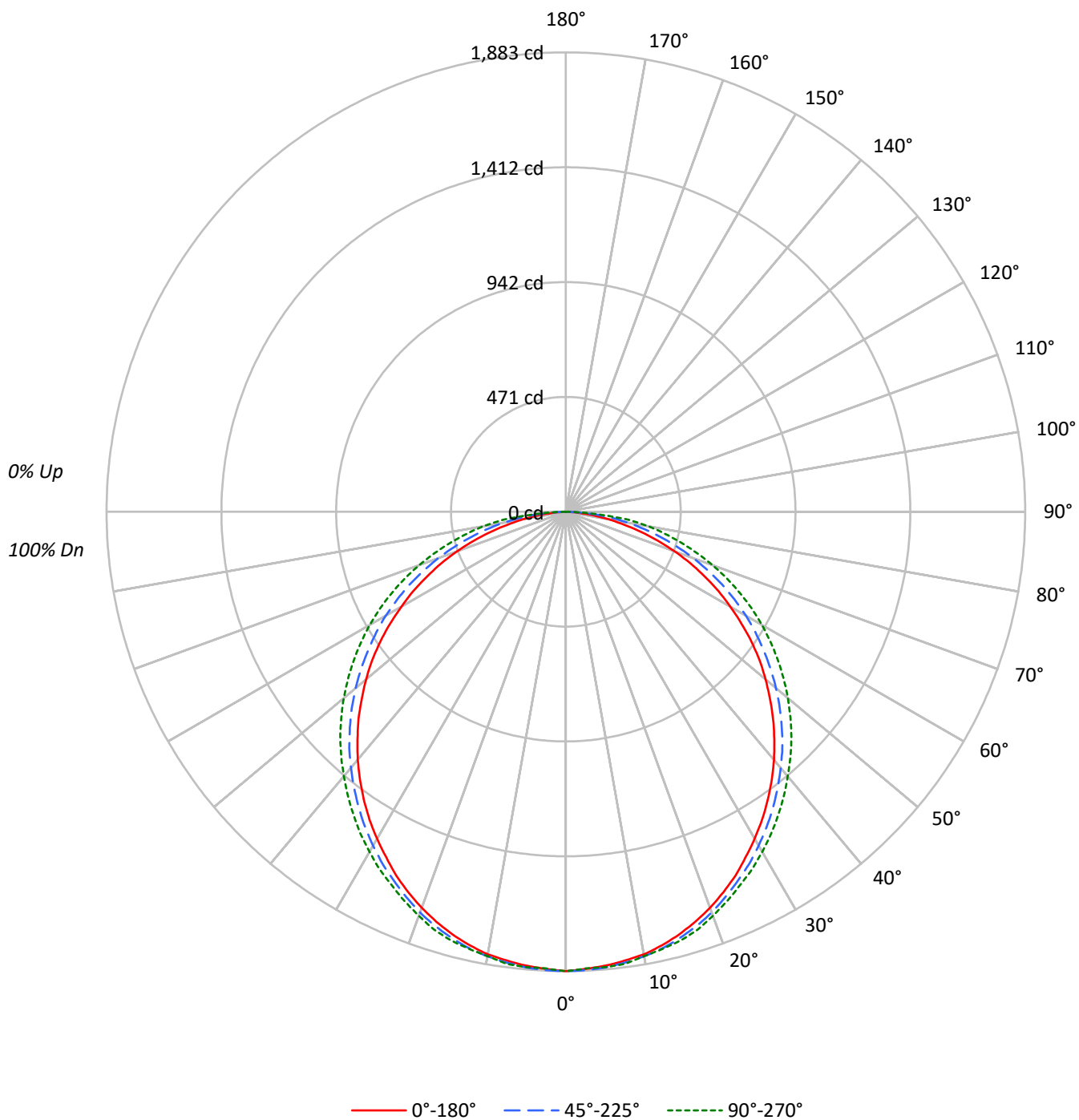
Lumens per Lamp: N/A  
Luminaire Lumens: 5498.0 lumens  
Efficiency: N/A  
Efficacy: 139.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°  | 2884 | 2884 | 2884 |
| 5°  | 2871 | 2882 | 2881 |
| 10° | 2865 | 2878 | 2876 |
| 15° | 2845 | 2867 | 2885 |
| 20° | 2816 | 2849 | 2873 |
| 25° | 2781 | 2820 | 2854 |
| 30° | 2737 | 2795 | 2846 |
| 35° | 2698 | 2768 | 2838 |
| 40° | 2653 | 2740 | 2829 |
| 45° | 2603 | 2713 | 2833 |
| 50° | 2547 | 2679 | 2831 |
| 55° | 2480 | 2642 | 2835 |
| 60° | 2387 | 2613 | 2842 |
| 65° | 2278 | 2562 | 2851 |
| 70° | 2123 | 2491 | 2863 |
| 75° | 1892 | 2391 | 2891 |
| 80° | 1564 | 2277 | 3032 |
| 85° | 1018 | 2056 | 2650 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 3128 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 178.1  | 3.2       |
| 10°-20°   | 510.0  | 9.3       |
| 20°-30°   | 769.1  | 14.0      |
| 30°-40°   | 926.4  | 16.8      |
| 40°-50°   | 967.5  | 17.6      |
| 50°-60°   | 888.5  | 16.2      |
| 60°-70°   | 699.8  | 12.7      |
| 70°-80°   | 429.3  | 7.8       |
| 80°-90°   | 129.2  | 2.3       |
| 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°    | 1457.2 | 26.5      |
| 0°-40°    | 2383.6 | 43.4      |
| 0°-60°    | 4239.6 | 77.1      |
| 0°-90°    | 5498.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5498.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1883 | 1883  | 1883 | 1883  | 1883 |      |
| 5°  | 1868 | 1870  | 1875 | 1881  | 1874 | 177  |
| 15° | 1794 | 1798  | 1808 | 1819  | 1819 | 506  |
| 25° | 1646 | 1649  | 1668 | 1689  | 1689 | 757  |
| 35° | 1443 | 1450  | 1480 | 1510  | 1518 | 902  |
| 45° | 1202 | 1215  | 1252 | 1296  | 1308 | 926  |
| 55° | 929  | 946   | 989  | 1045  | 1062 | 829  |
| 65° | 628  | 650   | 707  | 766   | 787  | 622  |
| 75° | 320  | 345   | 404  | 468   | 489  | 339  |
| 85° | 58   | 80    | 117  | 148   | 151  | 76   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1883.2 | 1883.2 | 1883.2 | 1883.2 | 1883.2 |
| 2.5°  | 1876.0 | 1879.6 | 1880.8 | 1882.0 | 1873.6 |
| 5°    | 1867.5 | 1869.9 | 1874.8 | 1880.8 | 1873.6 |
| 7.5°  | 1855.5 | 1857.9 | 1863.9 | 1872.4 | 1868.7 |
| 10°   | 1842.2 | 1843.4 | 1850.6 | 1856.7 | 1849.4 |
| 12.5° | 1820.5 | 1824.1 | 1832.5 | 1837.4 | 1835.0 |
| 15°   | 1793.9 | 1797.6 | 1808.4 | 1819.3 | 1819.3 |
| 17.5° | 1762.6 | 1767.4 | 1780.7 | 1795.1 | 1796.3 |
| 20°   | 1727.6 | 1731.2 | 1748.1 | 1762.6 | 1762.6 |
| 22.5° | 1687.8 | 1692.6 | 1709.5 | 1725.2 | 1727.6 |
| 25°   | 1645.5 | 1649.2 | 1668.5 | 1689.0 | 1689.0 |
| 27.5° | 1596.1 | 1603.3 | 1627.5 | 1648.0 | 1652.8 |
| 30°   | 1547.8 | 1553.9 | 1580.4 | 1605.7 | 1609.4 |
| 32.5° | 1497.2 | 1504.4 | 1532.1 | 1559.9 | 1565.9 |
| 35°   | 1442.9 | 1450.1 | 1480.3 | 1510.4 | 1517.7 |
| 37.5° | 1386.2 | 1394.6 | 1426.0 | 1461.0 | 1468.2 |
| 40°   | 1327.1 | 1336.7 | 1370.5 | 1407.9 | 1415.1 |
| 42.5° | 1264.3 | 1277.6 | 1313.8 | 1352.4 | 1363.2 |
| 45°   | 1201.6 | 1214.9 | 1252.3 | 1295.7 | 1307.8 |
| 47.5° | 1135.2 | 1150.9 | 1189.5 | 1235.4 | 1248.6 |
| 50°   | 1068.9 | 1084.6 | 1124.4 | 1173.8 | 1188.3 |
| 52.5° | 1001.3 | 1017.0 | 1058.0 | 1109.9 | 1125.6 |
| 55°   | 928.9  | 945.8  | 989.3  | 1044.8 | 1061.6 |
| 57.5° | 854.1  | 875.9  | 921.7  | 978.4  | 995.3  |
| 60°   | 779.3  | 801.1  | 852.9  | 908.4  | 927.7  |
| 62.5° | 705.8  | 726.3  | 779.3  | 838.5  | 859.0  |
| 65°   | 628.5  | 650.3  | 707.0  | 766.1  | 786.6  |
| 67.5° | 552.5  | 574.3  | 631.0  | 692.5  | 714.2  |
| 70°   | 474.1  | 498.2  | 556.2  | 617.7  | 639.4  |
| 72.5° | 395.7  | 421.0  | 480.2  | 542.9  | 563.4  |
| 75°   | 319.7  | 345.0  | 404.1  | 468.1  | 488.6  |
| 77.5° | 244.9  | 272.6  | 330.6  | 395.7  | 415.0  |
| 80°   | 177.3  | 203.9  | 258.2  | 322.1  | 343.8  |
| 82.5° | 113.4  | 136.3  | 190.6  | 250.9  | 266.6  |
| 85°   | 57.9   | 79.6   | 117.0  | 148.4  | 150.8  |
| 87.5° | 18.1   | 25.3   | 38.6   | 57.9   | 59.1   |
| 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 | 15.16            | 16.82 | 15.52 | 17.14 | 17.45 | 15.99          | 17.65 | 16.35 | 17.97 | 18.28 |
|                 | 3H   | 16.91            | 18.42 | 17.29 | 18.75 | 19.11 | 18.11          | 19.61 | 18.48 | 19.94 | 20.30 |
|                 | 4H   | 17.53            | 18.96 | 17.93 | 19.30 | 19.68 | 18.99          | 20.42 | 19.39 | 20.76 | 21.14 |
|                 | 6H   | 17.94            | 19.26 | 18.35 | 19.63 | 20.02 | 19.78          | 21.10 | 20.19 | 21.46 | 21.85 |
|                 | 8H   | 18.05            | 19.31 | 18.47 | 19.70 | 20.10 | 20.10          | 21.36 | 20.52 | 21.75 | 22.14 |
|                 | 12H  | 18.10            | 19.31 | 18.53 | 19.69 | 20.12 | 20.31          | 21.52 | 20.74 | 21.90 | 22.33 |
| 4H              | 2H   | 15.93            | 17.35 | 16.33 | 17.70 | 18.07 | 16.58          | 18.00 | 16.97 | 18.35 | 18.72 |
|                 | 3H   | 17.91            | 19.11 | 18.32 | 19.50 | 19.90 | 18.93          | 20.13 | 19.34 | 20.53 | 20.93 |
|                 | 4H   | 18.64            | 19.73 | 19.07 | 20.14 | 20.58 | 19.98          | 21.07 | 20.41 | 21.48 | 21.92 |
|                 | 6H   | 19.17            | 20.13 | 19.63 | 20.56 | 21.02 | 20.94          | 21.89 | 21.39 | 22.33 | 22.78 |
|                 | 8H   | 19.32            | 20.21 | 19.78 | 20.65 | 21.12 | 21.33          | 22.23 | 21.79 | 22.67 | 23.13 |
|                 | 12H  | 19.40            | 20.21 | 19.88 | 20.68 | 21.15 | 21.61          | 22.41 | 22.09 | 22.89 | 23.36 |
| 8H              | 4H   | 19.10            | 20.00 | 19.56 | 20.44 | 20.90 | 20.27          | 21.16 | 20.73 | 21.61 | 22.07 |
|                 | 6H   | 19.76            | 20.51 | 20.26 | 21.00 | 21.47 | 21.38          | 22.13 | 21.88 | 22.62 | 23.09 |
|                 | 8H   | 19.98            | 20.64 | 20.48 | 21.15 | 21.63 | 21.90          | 22.56 | 22.40 | 23.07 | 23.55 |
|                 | 12H  | 20.11            | 20.71 | 20.62 | 21.20 | 21.75 | 22.28          | 22.87 | 22.79 | 23.36 | 23.92 |
| 12H             | 4H   | 19.19            | 20.00 | 19.67 | 20.47 | 20.94 | 20.30          | 21.10 | 20.78 | 21.57 | 22.04 |
|                 | 6H   | 19.90            | 20.57 | 20.40 | 21.07 | 21.56 | 21.43          | 22.10 | 21.94 | 22.61 | 23.09 |
|                 | 8H   | 20.17            | 20.77 | 20.68 | 21.26 | 21.81 | 22.01          | 22.60 | 22.51 | 23.09 | 23.65 |