

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: P1588704

Luminaire Tested: 24CZSP-A-52HE-L935-S

Issue Date: 9/3/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1588704  
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-52HE-L935-S  
Description: 2x4 CZSP LED Luminaire, 3500K CCT and 5000 lumens, 90CRI, Smooth Lens, Air Vented Housing  
Light Source: -  
Ballast/Driver: -

**Summary**

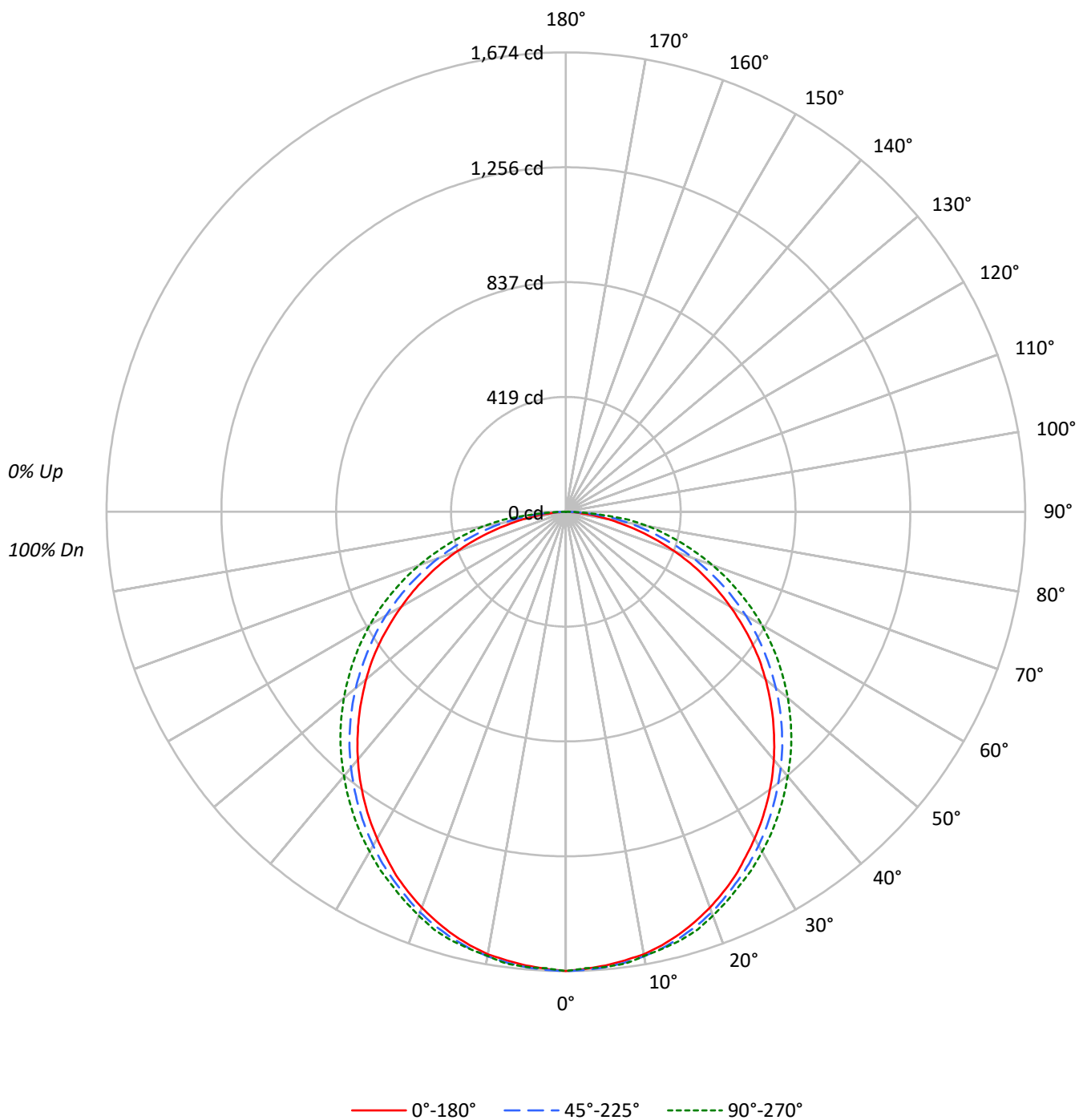
Lumens per Lamp: N/A  
Luminaire Lumens: 4886.0 lumens  
Efficiency: N/A  
Efficacy: 133.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 36.7  
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°  | 2563 | 2563 | 2563 |
| 5°  | 2552 | 2562 | 2560 |
| 10° | 2546 | 2558 | 2556 |
| 15° | 2528 | 2548 | 2564 |
| 20° | 2502 | 2532 | 2553 |
| 25° | 2471 | 2506 | 2537 |
| 30° | 2433 | 2484 | 2529 |
| 35° | 2398 | 2460 | 2522 |
| 40° | 2358 | 2435 | 2514 |
| 45° | 2313 | 2411 | 2517 |
| 50° | 2263 | 2381 | 2516 |
| 55° | 2204 | 2347 | 2519 |
| 60° | 2122 | 2322 | 2526 |
| 65° | 2024 | 2277 | 2533 |
| 70° | 1887 | 2213 | 2544 |
| 75° | 1681 | 2126 | 2569 |
| 80° | 1390 | 2023 | 2695 |
| 85° | 905  | 1828 | 2355 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 82.5°

Luminance: 2780 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 158.3  | 3.2       |
| 10°-20°   | 453.2  | 9.3       |
| 20°-30°   | 683.5  | 14.0      |
| 30°-40°   | 823.3  | 16.8      |
| 40°-50°   | 859.8  | 17.6      |
| 50°-60°   | 789.6  | 16.2      |
| 60°-70°   | 621.9  | 12.7      |
| 70°-80°   | 381.6  | 7.8       |
| 80°-90°   | 114.8  | 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°    | 1295.0 | 26.5      |
| 0°-40°    | 2118.3 | 43.4      |
| 0°-60°    | 3767.7 | 77.1      |
| 0°-90°    | 4886.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4886.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1674 | 1674  | 1674 | 1674  | 1674 |      |
| 5°  | 1660 | 1662  | 1666 | 1671  | 1665 | 158  |
| 15° | 1594 | 1598  | 1607 | 1617  | 1617 | 450  |
| 25° | 1462 | 1466  | 1483 | 1501  | 1501 | 673  |
| 35° | 1282 | 1289  | 1316 | 1342  | 1349 | 802  |
| 45° | 1068 | 1080  | 1113 | 1152  | 1162 | 823  |
| 55° | 826  | 840   | 879  | 928   | 944  | 737  |
| 65° | 559  | 578   | 628  | 681   | 699  | 553  |
| 75° | 284  | 307   | 359  | 416   | 434  | 301  |
| 85° | 52   | 71    | 104  | 132   | 134  | 67   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 |
| 2.5°  | 1667.2 | 1670.4 | 1671.4 | 1672.5 | 1665.0 |
| 5°    | 1659.6 | 1661.8 | 1666.1 | 1671.4 | 1665.0 |
| 7.5°  | 1648.9 | 1651.1 | 1656.4 | 1663.9 | 1660.7 |
| 10°   | 1637.1 | 1638.2 | 1644.6 | 1650.0 | 1643.6 |
| 12.5° | 1617.8 | 1621.1 | 1628.6 | 1632.8 | 1630.7 |
| 15°   | 1594.2 | 1597.5 | 1607.1 | 1616.8 | 1616.8 |
| 17.5° | 1566.4 | 1570.7 | 1582.5 | 1595.3 | 1596.4 |
| 20°   | 1535.3 | 1538.5 | 1553.5 | 1566.4 | 1566.4 |
| 22.5° | 1499.9 | 1504.2 | 1519.2 | 1533.1 | 1535.3 |
| 25°   | 1462.4 | 1465.6 | 1482.7 | 1501.0 | 1501.0 |
| 27.5° | 1418.4 | 1424.9 | 1446.3 | 1464.5 | 1468.8 |
| 30°   | 1375.5 | 1380.9 | 1404.5 | 1427.0 | 1430.2 |
| 32.5° | 1330.5 | 1336.9 | 1361.6 | 1386.3 | 1391.6 |
| 35°   | 1282.3 | 1288.7 | 1315.5 | 1342.3 | 1348.7 |
| 37.5° | 1231.9 | 1239.4 | 1267.3 | 1298.3 | 1304.8 |
| 40°   | 1179.3 | 1187.9 | 1217.9 | 1251.2 | 1257.6 |
| 42.5° | 1123.6 | 1135.4 | 1167.5 | 1201.9 | 1211.5 |
| 45°   | 1067.8 | 1079.6 | 1112.9 | 1151.5 | 1162.2 |
| 47.5° | 1008.9 | 1022.8 | 1057.1 | 1097.9 | 1109.6 |
| 50°   | 949.9  | 963.8  | 999.2  | 1043.2 | 1056.0 |
| 52.5° | 889.9  | 903.8  | 940.3  | 986.4  | 1000.3 |
| 55°   | 825.5  | 840.5  | 879.1  | 928.5  | 943.5  |
| 57.5° | 759.1  | 778.4  | 819.1  | 869.5  | 884.5  |
| 60°   | 692.6  | 711.9  | 758.0  | 807.3  | 824.5  |
| 62.5° | 627.2  | 645.4  | 692.6  | 745.1  | 763.4  |
| 65°   | 558.6  | 577.9  | 628.3  | 680.8  | 699.0  |
| 67.5° | 491.0  | 510.3  | 560.7  | 615.4  | 634.7  |
| 70°   | 421.3  | 442.8  | 494.2  | 548.9  | 568.2  |
| 72.5° | 351.7  | 374.2  | 426.7  | 482.5  | 500.7  |
| 75°   | 284.1  | 306.6  | 359.2  | 416.0  | 434.2  |
| 77.5° | 217.6  | 242.3  | 293.8  | 351.7  | 368.8  |
| 80°   | 157.6  | 181.2  | 229.4  | 286.3  | 305.6  |
| 82.5° | 100.8  | 121.2  | 169.4  | 223.0  | 236.9  |
| 85°   | 51.5   | 70.8   | 104.0  | 131.9  | 134.0  |
| 87.5° | 16.1   | 22.5   | 34.3   | 51.5   | 52.5   |
| 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 | 14.75            | 16.41 | 15.11 | 16.73 | 17.04 | 15.58          | 17.24 | 15.94 | 17.56 | 17.87 |
|                 | 3H   | 16.50            | 18.01 | 16.88 | 18.34 | 18.70 | 17.70          | 19.20 | 18.07 | 19.53 | 19.89 |
|                 | 4H   | 17.12            | 18.55 | 17.52 | 18.89 | 19.27 | 18.58          | 20.01 | 18.98 | 20.35 | 20.73 |
|                 | 6H   | 17.53            | 18.85 | 17.94 | 19.22 | 19.61 | 19.37          | 20.69 | 19.78 | 21.05 | 21.44 |
|                 | 8H   | 17.64            | 18.90 | 18.06 | 19.29 | 19.69 | 19.69          | 20.95 | 20.11 | 21.34 | 21.73 |
|                 | 12H  | 17.69            | 18.90 | 18.12 | 19.28 | 19.71 | 19.90          | 21.11 | 20.33 | 21.49 | 21.92 |
| 4H              | 2H   | 15.52            | 16.94 | 15.92 | 17.29 | 17.66 | 16.17          | 17.59 | 16.56 | 17.94 | 18.31 |
|                 | 3H   | 17.50            | 18.70 | 17.91 | 19.09 | 19.49 | 18.52          | 19.72 | 18.93 | 20.12 | 20.52 |
|                 | 4H   | 18.23            | 19.32 | 18.66 | 19.73 | 20.17 | 19.57          | 20.66 | 20.00 | 21.07 | 21.51 |
|                 | 6H   | 18.76            | 19.72 | 19.22 | 20.15 | 20.61 | 20.53          | 21.48 | 20.98 | 21.92 | 22.37 |
|                 | 8H   | 18.91            | 19.80 | 19.37 | 20.24 | 20.71 | 20.92          | 21.82 | 21.38 | 22.26 | 22.72 |
|                 | 12H  | 18.99            | 19.80 | 19.47 | 20.27 | 20.74 | 21.20          | 22.00 | 21.68 | 22.48 | 22.95 |
| 8H              | 4H   | 18.69            | 19.59 | 19.15 | 20.03 | 20.49 | 19.86          | 20.75 | 20.32 | 21.20 | 21.66 |
|                 | 6H   | 19.35            | 20.10 | 19.85 | 20.59 | 21.06 | 20.97          | 21.72 | 21.47 | 22.21 | 22.68 |
|                 | 8H   | 19.57            | 20.23 | 20.07 | 20.74 | 21.22 | 21.49          | 22.15 | 21.99 | 22.66 | 23.14 |
|                 | 12H  | 19.70            | 20.30 | 20.21 | 20.79 | 21.34 | 21.87          | 22.46 | 22.38 | 22.95 | 23.51 |
| 12H             | 4H   | 18.78            | 19.59 | 19.26 | 20.06 | 20.53 | 19.89          | 20.69 | 20.37 | 21.16 | 21.63 |
|                 | 6H   | 19.49            | 20.16 | 19.99 | 20.66 | 21.15 | 21.02          | 21.69 | 21.53 | 22.20 | 22.68 |
|                 | 8H   | 19.76            | 20.36 | 20.27 | 20.85 | 21.40 | 21.60          | 22.19 | 22.11 | 22.68 | 23.24 |